SYLVANIA Emerson®

SERVICE MANUAL

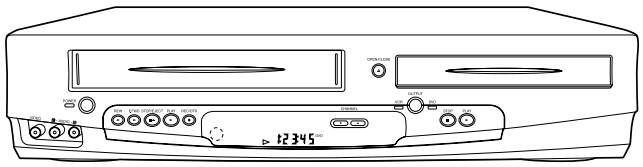
Main Section
- Specifications
- Preparation for Servicing
- Adjustment Procedures
- Schematic Diagrams
- CBA's
- Exploded Views
- Parts List

When servicing the deck mechanism, refer to MK12.5 Deck Mechanism Section.

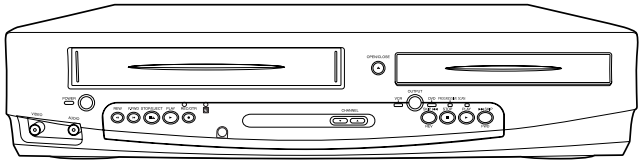
Deck Mechanism Part No.: N2260FL, N2240FL

DVD PLAYER & VIDEO CASSETTE RECORDER

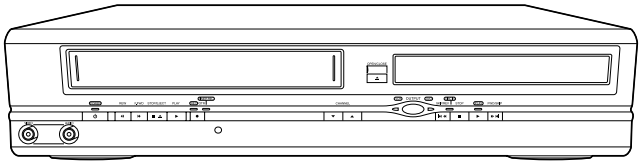
DVC860E



DVC840E/DVC845E



EWD2204



VHS

IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all Funai Equipment. The service procedures recommended by Funai and described in this service manual are effective methods of performing service operations. Some of these service special tools should be used when and as recommended.

It is important to note that this service manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It also is important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. Funai could not possibly know, evaluate and advice the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, Funai has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by Funai must first use all precautions thoroughly so that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

MAIN SECTION

DVD PLAYER & VIDEO CASSETTE RECORDER

DVC860E/DVC840E/DVC845E/ EWD2204

Main Section

- **Specifications**
- **Preparation for Servicing**
- **Adjustment Procedures**
- **Schematic Diagrams**
- **CBA's**
- **Exploded Views**
- **Parts List**

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SPECIFICATIONS

< VCR Section >

Description	Unit	Minimum	Nominal	Maximum	Remark
1. Video					
1-1. Video Output (PB)	Vp-p	0.8	1.0	1.2	SP Mode
1-2. Video Output (R/P)	Vp-p	0.8	1.0	1.2	
1-3. Video S/N Y (R/P)	dB	40	45		SP Mode, W/O Burst
1-4. Video Color S/N AM (R/P)	dB	37	41		SP Mode
1-5. Video Color S/N PM (R/P)	dB	30	36		SP Mode
1-6. Resolution (PB)	Line	230	245		SP Mode
2. Servo					
2-1. Jitter Low	μsec		0.07	0.12	SP Mode
2-2. Wow & Flutter	%		0.3	0.5	SP Mode
3. Normal Audio					
3-1. Output (PB)	dBV	-9	-6	-3	SP Mode
3-2. Output (R/P)	dBV	-9	-6	-1.5	SP Mode
3-3. S/N (R/P)	dB	36	41		SP Mode
3-4. Distortion (R/P)	%		1.0	4.0	SP Mode
3-5. Freq. resp (R/P) at 200Hz	dB	-11	-4		SP Mode
(-20dB ref. 1kHz) at 8kHz	dB	-14	-4		SP Mode
4. Tuner					
4-1. Video output	Vp-p	0.8	1.0	1.2	E-E Mode
4-2. Video S/N	dB	39	42		E-E Mode
4-3. Audio output	dB	-10	-6	-2	E-E Mode
4-4. Audio S/N	dB	40	46		E-E Mode
5. Hi-Fi Audio [DVC860E]					
5-1. Output	dBV	-12	-8	-4	SP Mode
5-2. Dynamic Range	dB	70	85		SP Mode
5-3. Freq. resp (6dB B.W)	Hz		20 ~ 20K		SP Mode

Note: Nominal specs represent the design specs. All units should be able to approximate these – some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable; In no case should a unit fail to meet limit specs.

< DVD Section >

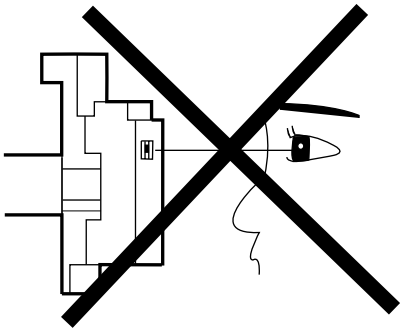
ITEM	CONDITIONS	UNIT	NOMINAL	LIMIT
1. Video Output	75 ohm load	Vpp	1.0	± 0.1
2. Coaxial Digital Out	75 ohm load	mVpp	500	± 50
3. Audio (PCM)				
3-1. Output Level	1 kHz 0 dB	Vrms	2.0	
3-2. S/N		dB	90	
3-3. Freq. Response				
DVD	fs = 48 kHz ± 0.5dB	Hz	20~22 k	
CD	fs = 44.1 kHz ± 0.5dB	Hz	20~20 k	
3-4. THD+N				
DVD	1 kHz 0dB	%	0.01	
CD	1 kHz 0dB	%	0.01	

NOTES:

1. All Items are measured without pre-emphasis unless otherwise specified.
2. Power supply : AC120 V 60 Hz
3. Load imp. : 100 k ohm
4. Ambient Temperature : +25 °C

LASER BEAM SAFETY PRECAUTIONS

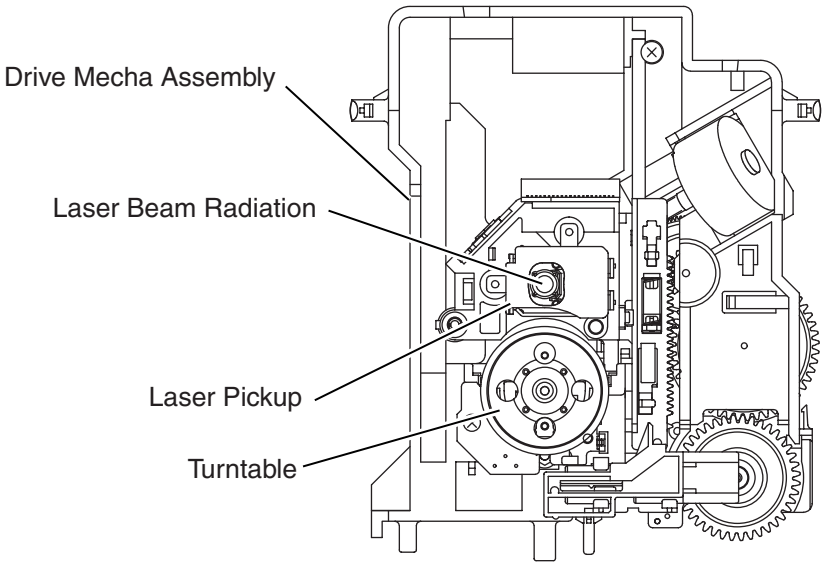
This DVD player uses a pickup that emits a laser beam.



Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 30cm away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.

Caution: Use of controls and adjustments, or doing procedures other than those specified herein, may result in hazardous radiation exposure.



CAUTION
LASER RADIATION
WHEN OPEN. DO NOT
STARE INTO BEAM.

Location: Top of DVD mechanism.

IMPORTANT SAFETY PRECAUTIONS

Product Safety Notice

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by a ⚠ on schematics and in parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards. The Product's Safety is under review continuously and new instructions are issued whenever appropriate. Prior to shipment from the factory, our products are carefully inspected to confirm with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced**.**

Precautions during Servicing

A. Parts identified by the ⚠ symbol are critical for safety. Replace only with part number specified.

B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements.
Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.

C. Use specified internal wiring. Note especially:

1)Wires covered with PVC tubing

2)Double insulated wires

3)High voltage leads

D. Use specified insulating materials for hazardous live parts. Note especially:

1)Insulation tape

2)PVC tubing

3)Spacers

4)Insulators for transistors

E. When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.

F. Observe that the wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).

G. Check that replaced wires do not contact sharp edges or pointed parts.

H. When a power cord has been replaced, check that 5 - 6 kg of force in any direction will not loosen it.

I. Also check areas surrounding repaired locations.

J. Be careful that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

K. Crimp type wire connector
The power transformer uses crimp type connectors which connect the power cord and the primary side of the transformer. When replacing the transformer, follow these steps carefully and precisely to prevent shock hazards.
Replacement procedure

1)Remove the old connector by cutting the wires at a point close to the connector.

Important: Do not re-use a connector. (Discard it.)

2)Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

3)Align the lengths of the wires to be connected. Insert the wires fully into the connector.

4)Use a crimping tool to crimp the metal sleeve at its center. Be sure to crimp fully to the complete closure of the tool.

L. When connecting or disconnecting the internal connectors, first, disconnect the AC plug from the AC outlet.

Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts, and wires have been returned to their original positions. Afterwards, do the following tests and confirm the specified values to verify compliance with safety standards.

1. Clearance Distance

When replacing primary circuit components, confirm specified clearance distance (d) and (d') between soldered terminals, and between terminals and surrounding metallic parts. (See Fig. 1)

Table 1: Ratings for selected area

AC Line Voltage	Clearance Distance (d), (d')
120 V	≥ 3.2mm (0.126 inches)

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

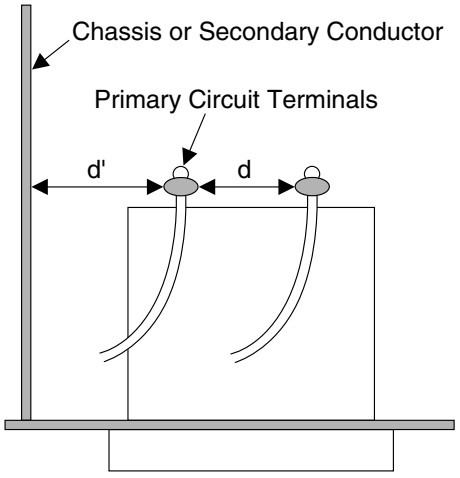


Fig. 1

2. Leakage Current Test

Confirm the specified (or lower) leakage current between B (earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.) is lower than or equal to the specified value in the table below.

Measuring Method (Power ON) :

Insert load Z between B (earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across the terminals of load Z. See Fig. 2 and the following table.

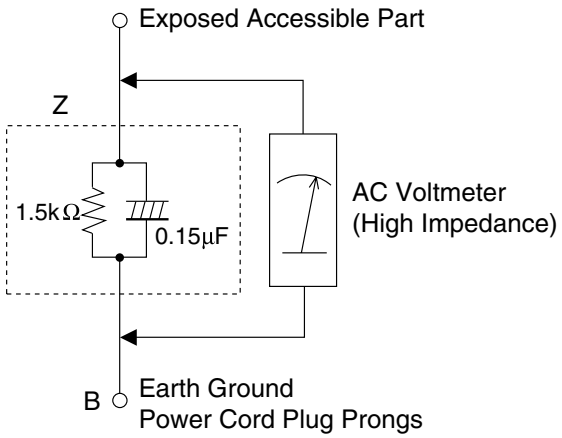


Fig. 2

Table 2: Leakage current ratings for selected areas

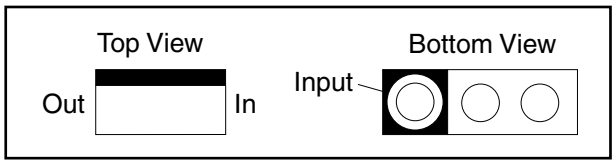
AC Line Voltage	Load Z	Leakage Current (i)	Earth Ground (B) to:
120 V	0.15μF CAP. & 1.5kΩ RES. Connected in parallel	i≤0.5mA Peak	Exposed accessible parts

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

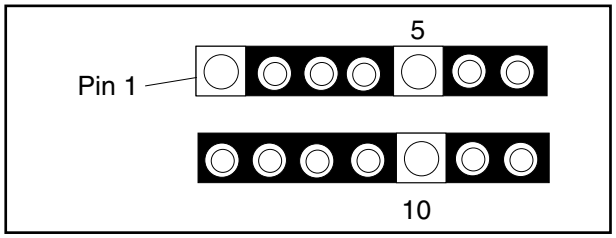
STANDARD NOTES FOR SERVICING

Circuit Board Indications

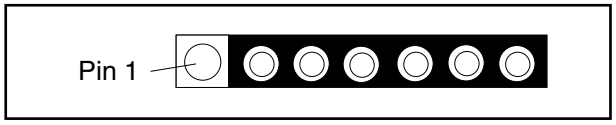
1. The output pin of the 3 pin Regulator ICs is indicated as shown.



2. For other ICs, pin 1 and every fifth pin are indicated as shown.

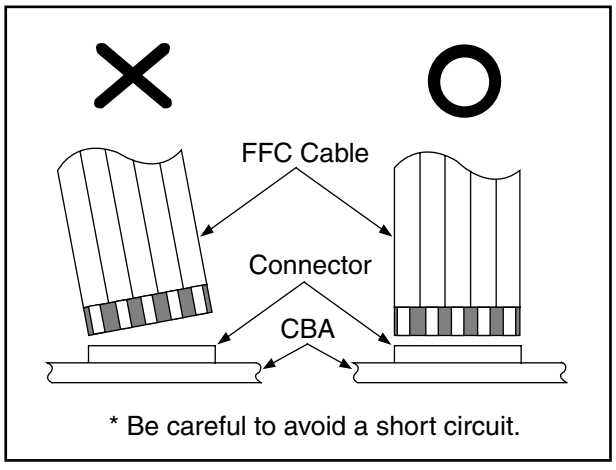


3. The 1st pin of every male connector is indicated as shown.



Instructions for Connectors

1. When you connect or disconnect the FFC (Flexible Foil Connector) cable, be sure to first disconnect the AC cord.
2. FFC (Flexible Foil Connector) cable should be inserted parallel into the connector, not at an angle.



Pb (Lead) Free Solder

When soldering, be sure to use the Pb free solder.

How to Remove / Install Flat Pack-IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:.

(1) Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)

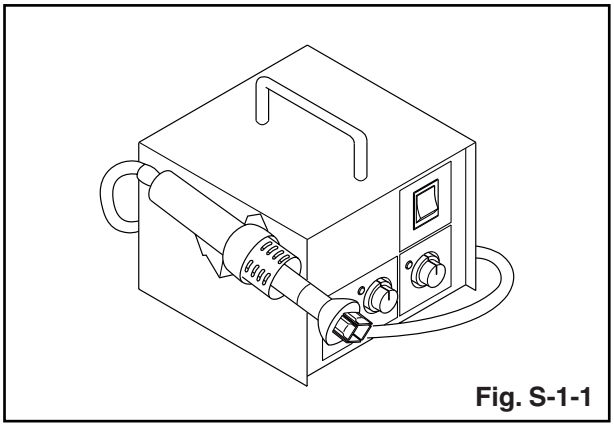


Fig. S-1-1

(2) Remove the flat pack-IC with tweezers while applying the hot air.

(3) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

(4) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Caution:

1. The Flat Pack-IC shape may differ by models. Use an appropriate hot-air flat pack-IC desoldering machine, whose shape matches that of the Flat Pack-IC.
2. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)

3. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

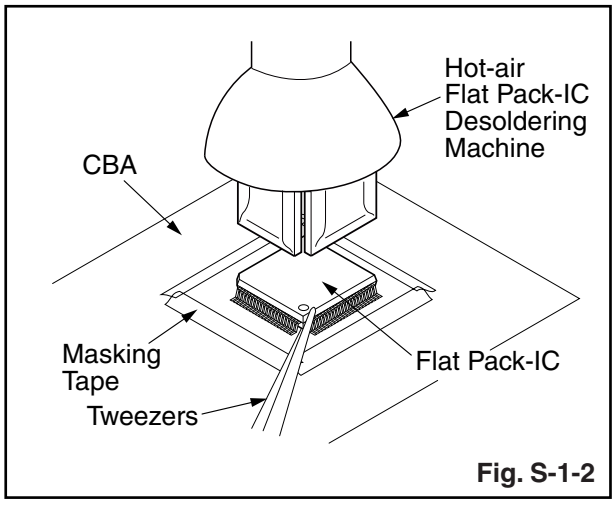


Fig. S-1-2

With Soldering Iron:

(1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

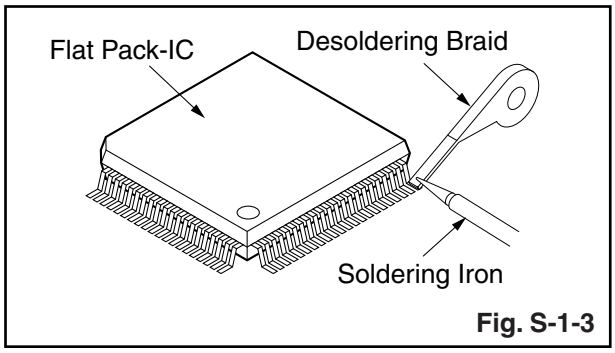


Fig. S-1-3

(2) Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig. S-1-4)

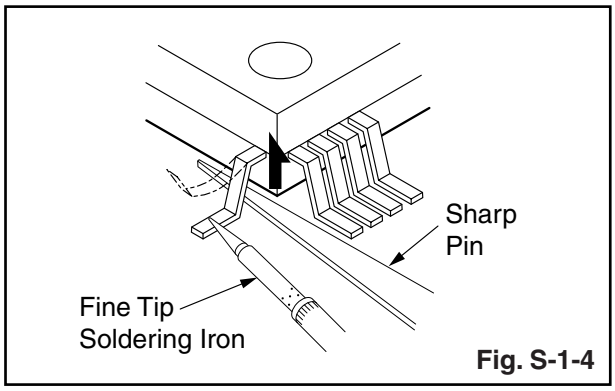


Fig. S-1-4

(3) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

(4) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

With Iron Wire:

(1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

(2) Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.

(3) While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5.

(4) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

(5) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Note:

When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.

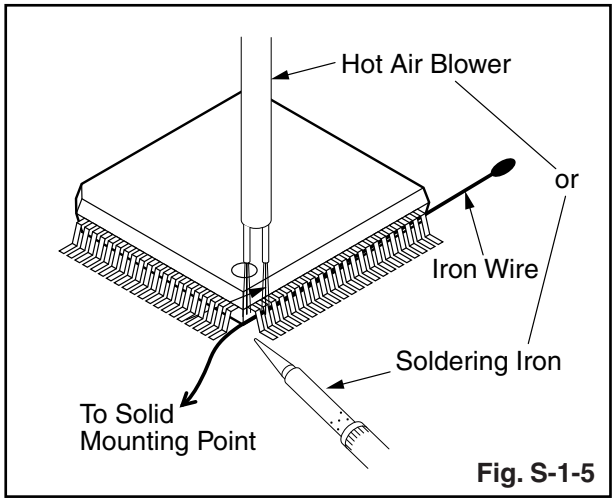


Fig. S-1-5

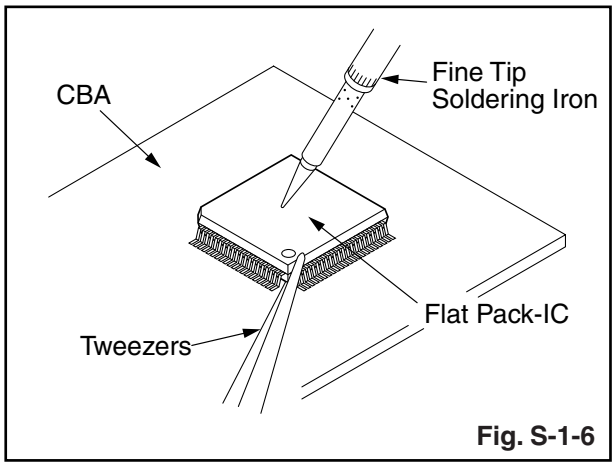


Fig. S-1-6

2. Installation

(1) Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.

(2) The "●" mark on the flat pack-IC indicates pin 1. (See Fig. S-1-7.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig. S-1-8.)

(3) Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.

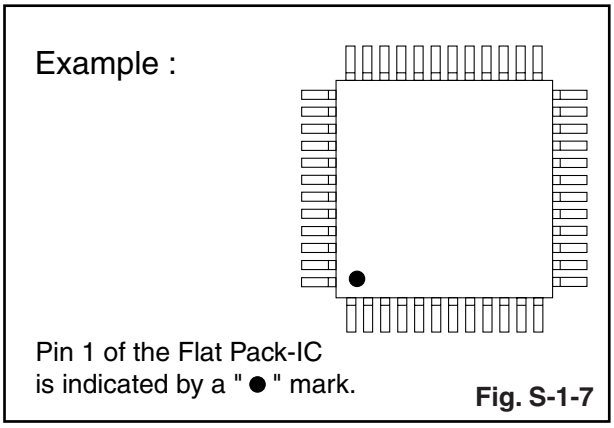


Fig. S-1-7

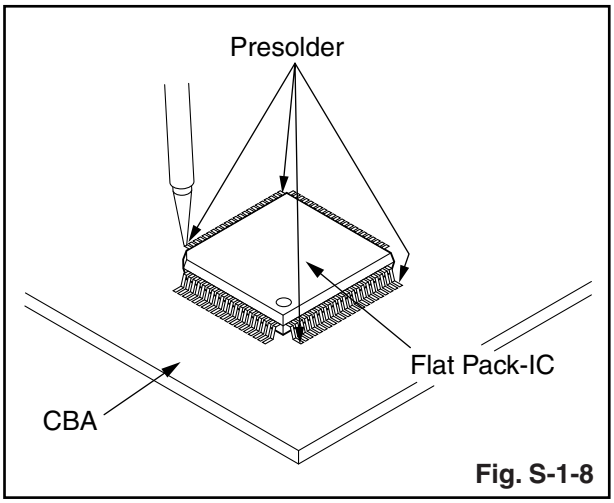


Fig. S-1-8

Instructions for Handling Semi-conductors

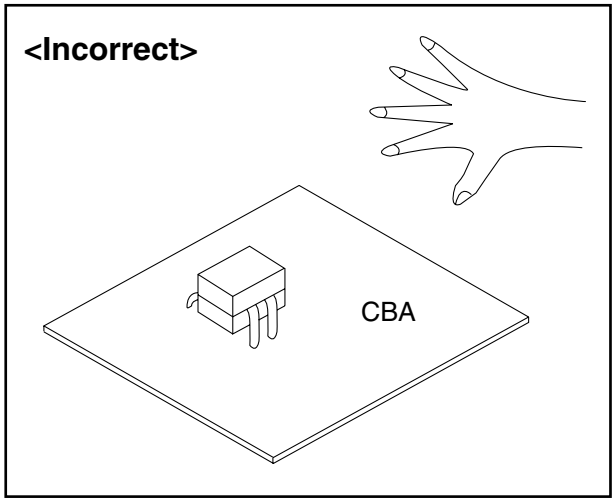
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

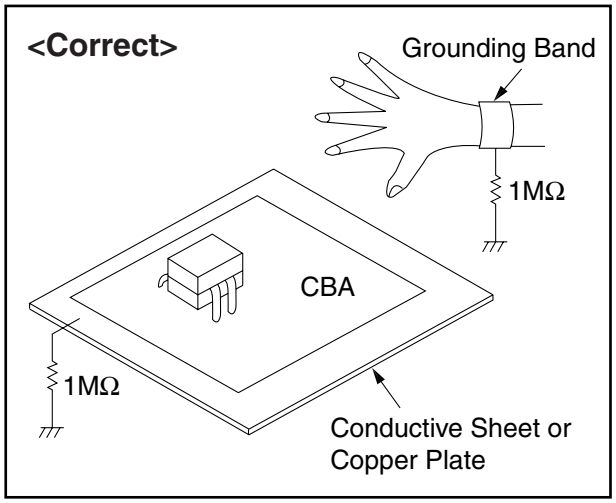
1. Ground for Human Body

Be sure to wear a grounding band (1MΩ) that is properly grounded to remove any static electricity that may be charged on the body.

2. Ground for Workbench

(1) Be sure to place a conductive sheet or copper plate with proper grounding (1MΩ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors with your clothing.





PREPARATION FOR SERVICING

How to Enter the Service Mode

About Optical Sensors

Caution:

An optical sensor system is used for the Tape Start and End Sensors on this equipment. Carefully read and follow the instructions below. Otherwise the unit may operate erratically.

What to do for preparation

Insert a tape into the Deck Mechanism Assembly and press the PLAY button. The tape will be loaded into the Deck Mechanism Assembly. Make sure the power is on, connect TP502 (S-INH) to GND. This will stop the function of Tape Start Sensor, Tape End Sensor and Reel Sensors. (If these TPs are connected before plugging in the unit, the function of the sensors will stay valid.) See Fig. 1.

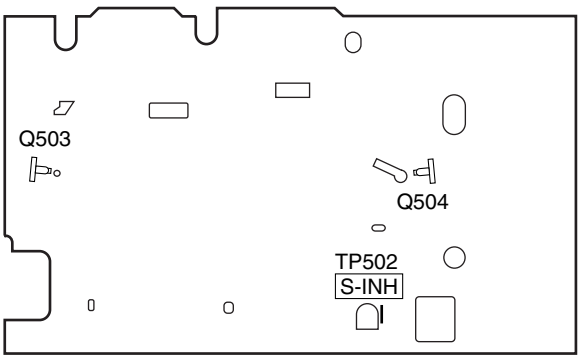


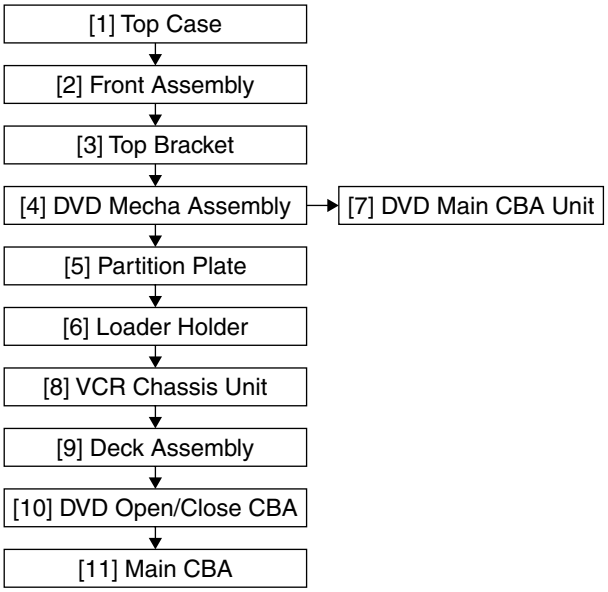
Fig. 1

Note: Because the Tape End Sensors are inactive, do not run a tape all the way to the start or the end of the tape to avoid tape damage.

CABINET DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

This flowchart indicates the disassembly steps to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route, and dress the cables as they were originally.



2. Disassembly Method

ID/ LOC. No.	PART	REMOVAL		
		Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	Note
[1]	Top Case	D1	4(S-1)	-
[2]	Front Assembly	D2	*3(L-1), *3(L-2)	1 1-1 1-2
[3]	Top Bracket	D2	3(S-2)	-
[4]	DVD Mecha Assembly	D3	4(S-3), *CN401, *CN601	-
[5]	Partition Plate	D3	2(S-4)	-
[6]	Loader Holder	D3	2(S-5)	-
[7]	DVD Main CBA Unit	D4	(S-6), *CN201, *CN301	2 2-1 2-2 3
[8]	VCR Chassis Unit	D5	5(S-7), (S-8)	-
[9]	Deck Assembly	D6	Desolder, (S-9), (S-10), (S-11)	4,5
[10]	DVD Open/ Close CBA	D6	Desolder	-
[11]	Main CBA	D6	----------	-
↓ (1)	↓ (2)	↓ (3)	↓ (4)	↓ (5)

Note:

(1): Identification (location) No. of parts in the figures

(2): Name of the part

(3): Figure Number for reference

(4): Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.
P=Spring, L=Locking Tab, S=Screw,
CN=Connector
*=Unhook, Unlock, Release, Unplug, or Desolder
e.g. 2(S-2) = two Screws (S-2),
2(L-2) = two Locking Tabs (L-2)

(5): Refer to “Reference Notes.”

Reference Notes

CAUTION 1: Locking Tabs (L-1) and (L-2) are fragile. Be careful not to break them.

1-1. Release three Locking Tabs (L-1).

1-2. Release three Locking Tabs (L-2), then remove the Front Assembly.

CAUTION 2: Electrostatic breakdown of the laser diode in the optical system block may occur as a potential difference caused by electrostatic charge accumulated on cloth, human body etc, during unpacking or repair work.

To avoid damage of pickup follow next procedures.

2-1. Disconnect Connector (CN301). Remove a Screw (S-6) and lift the DVD Main CBA Unit. (Fig. D4)

2-2. Short the three short lands of FPC cable with solder before removing the FFC cable (CN201) from it. If you disconnect the FFC cable (CN201), the laser diode of pickup will be destroyed. (Fig. D4)

CAUTION 3: When reassembling, confirm the FFC cable (CN201) is connected completely. Then remove the solder from the three short lands of FPC cable. (Fig. D4)

4. When reassembling, solder wire jumpers as shown in Fig. D6.

5. Before installing the Deck Assembly, be sure to place the pin of LD-SW on Main CBA as shown in Fig. D6. Then, install the Deck Assembly while aligning the hole of Cam Gear with the pin of LD-SW, the shaft of Cam Gear with the hole of LD-SW as shown in Fig. D6.

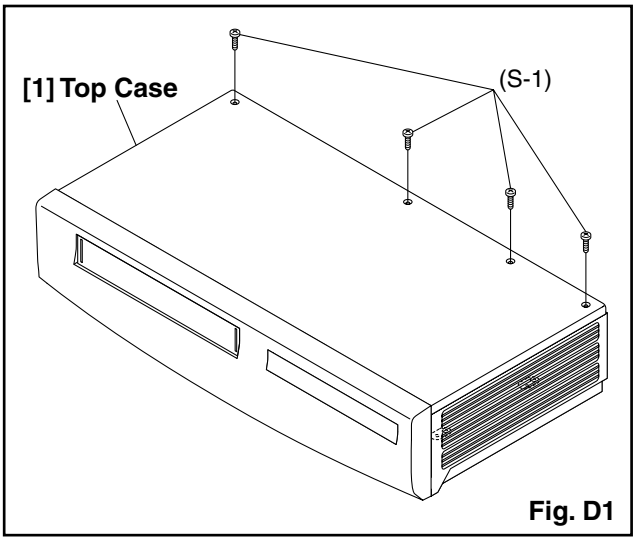


Fig. D1

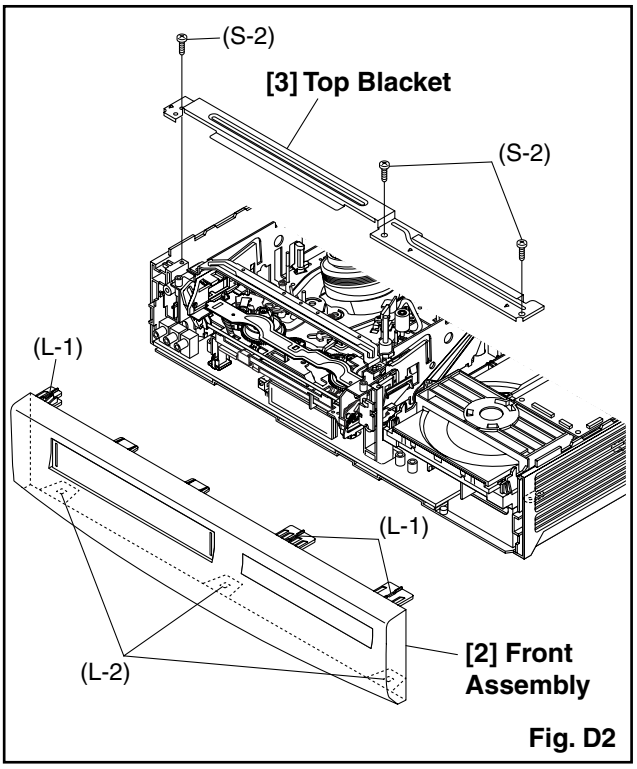


Fig. D2

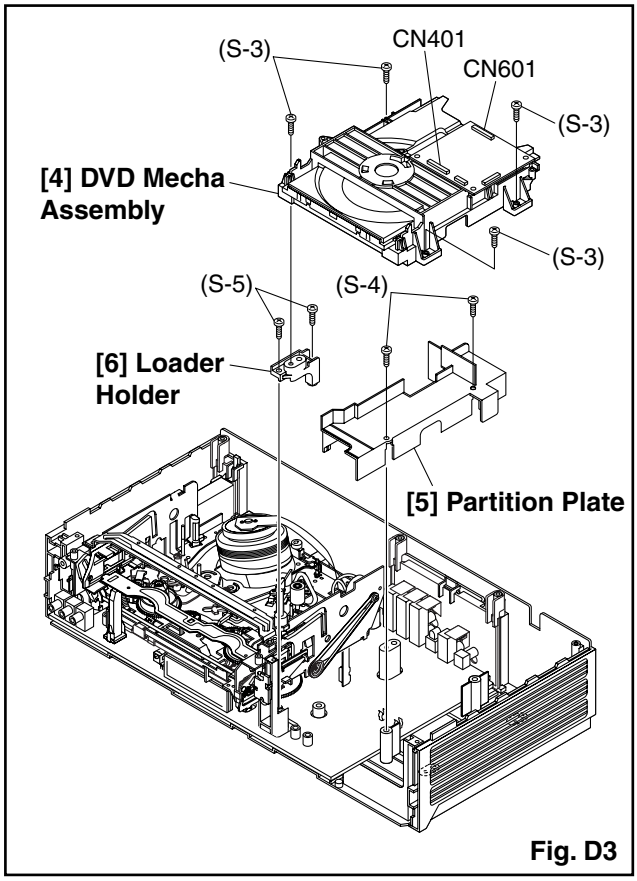


Fig. D3

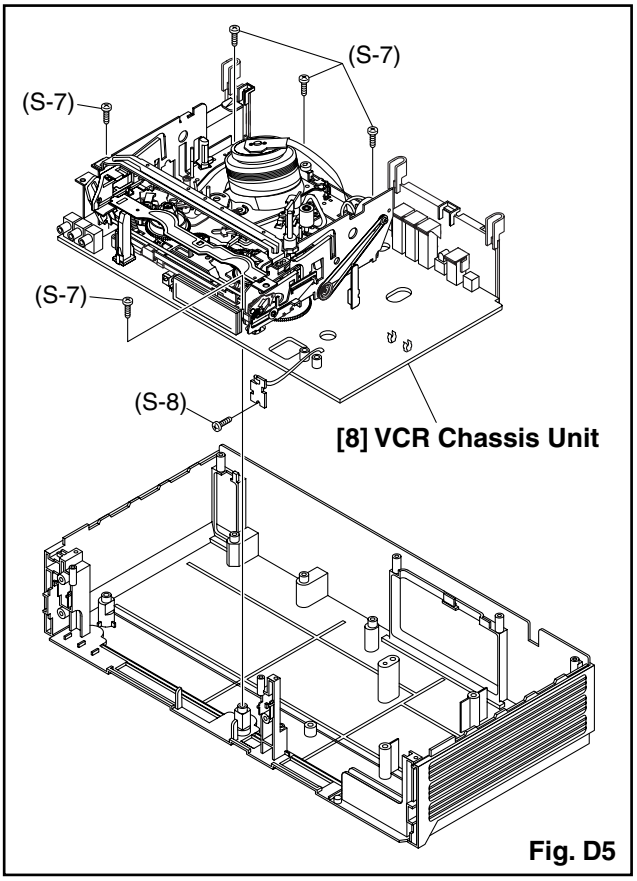


Fig. D5

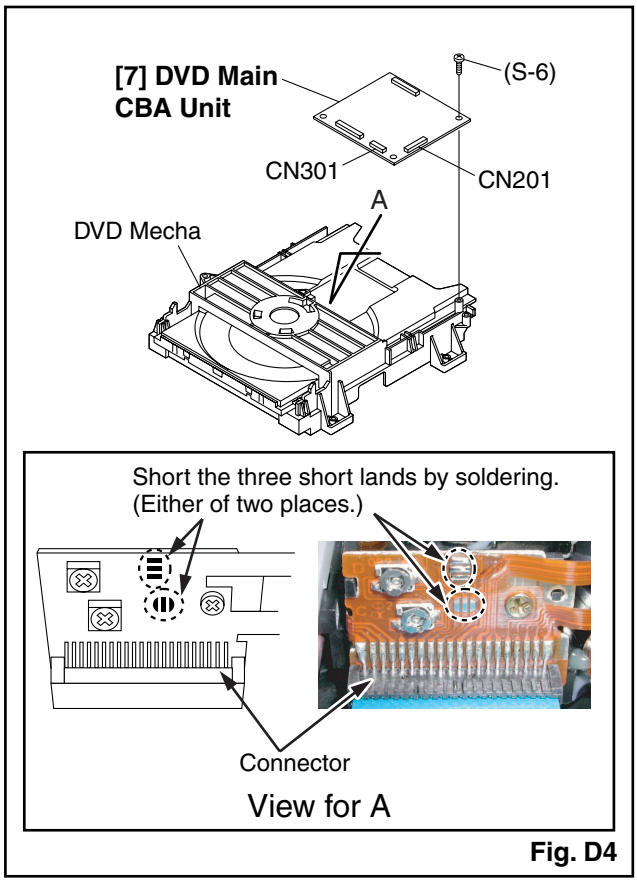
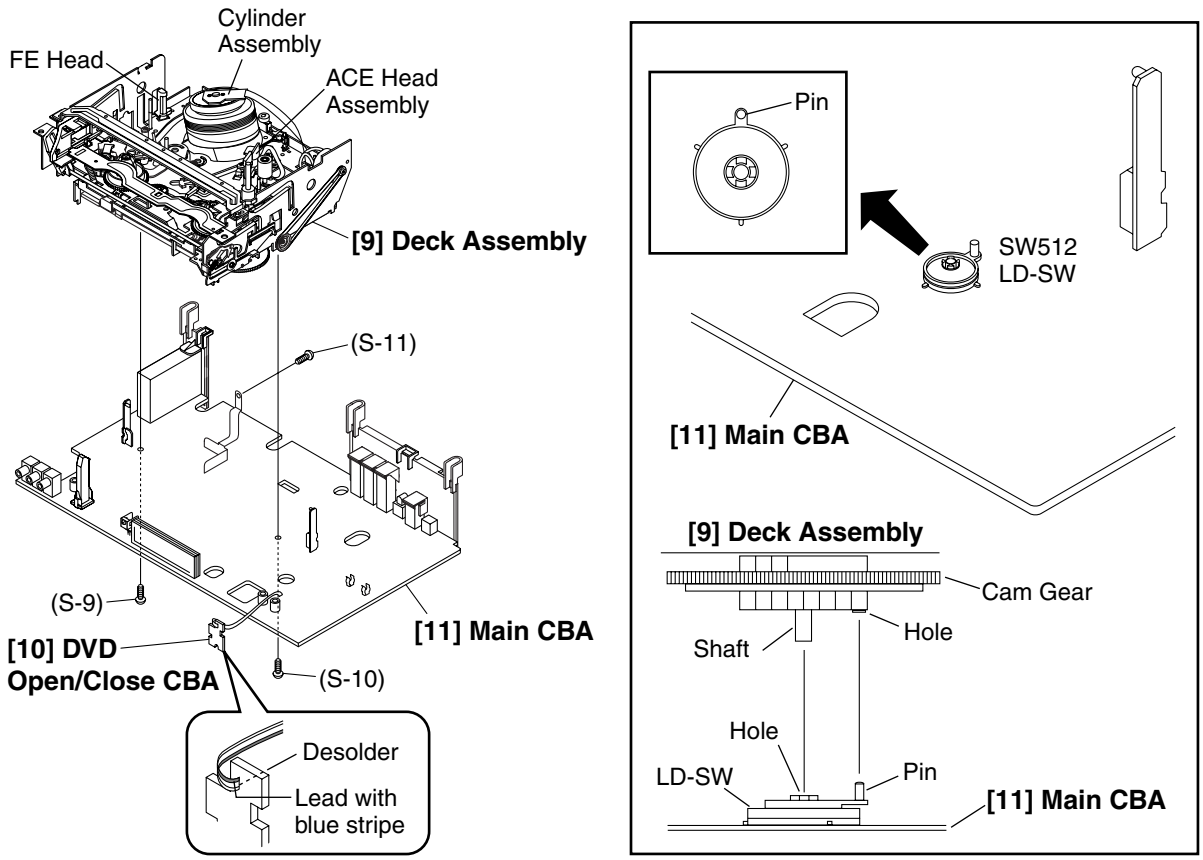
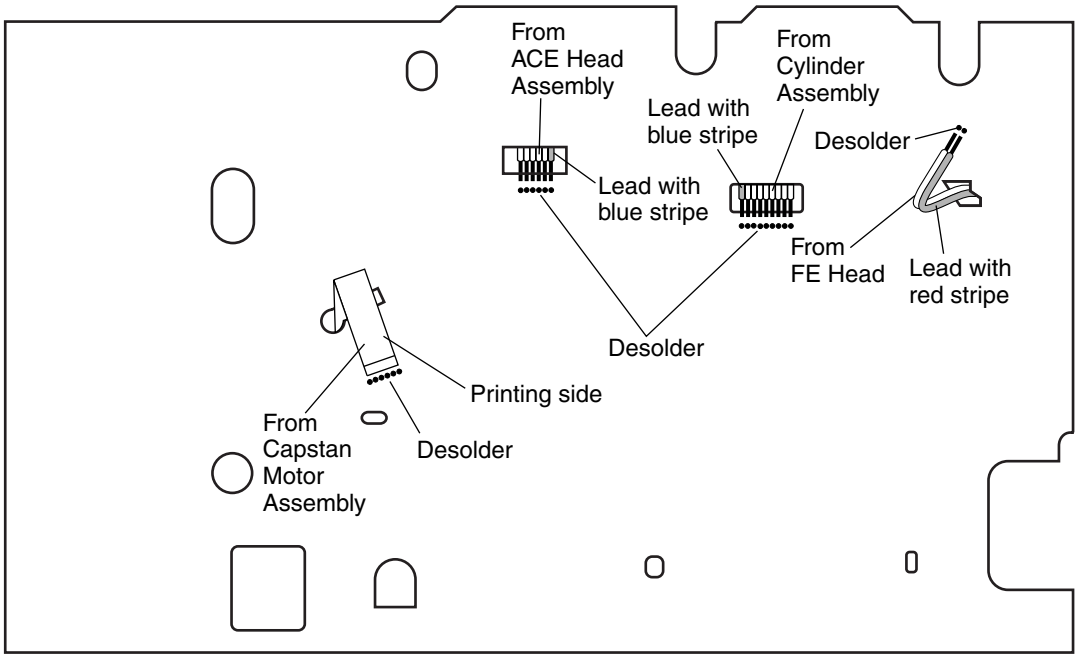


Fig. D4





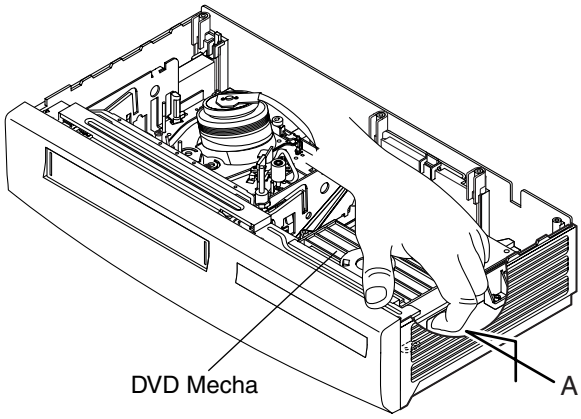
BOTTOM VIEW

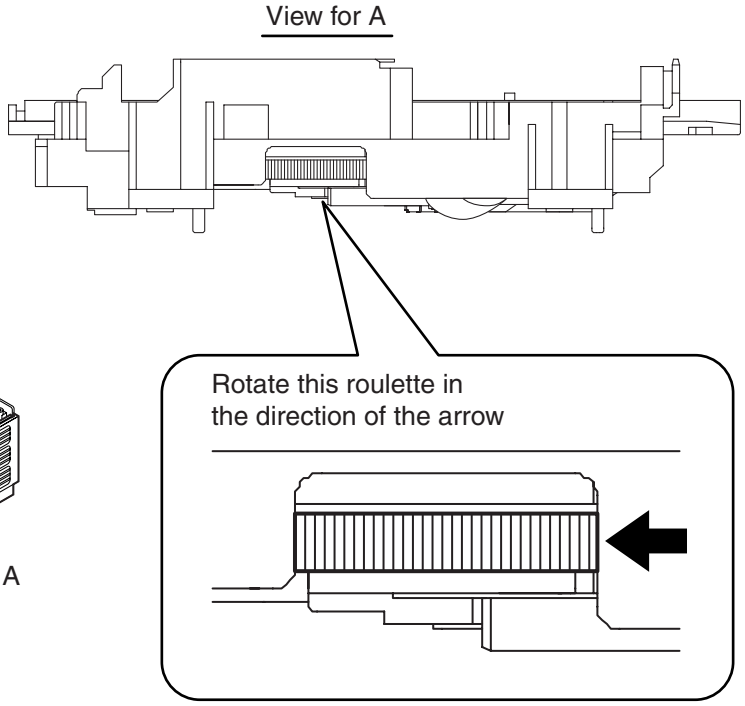
Lead connections of Deck Assembly and Main CBA

Fig. D6

HOW TO EJECT MANUALLY

1. Remove the Top Case.
2. Rotate the roulette in the direction of the arrow as shown below.
3. Pull the tray slowly with a hand.





ELECTRICAL ADJUSTMENT INSTRUCTIONS

General Note: "CBA" is an abbreviation for "Circuit Board Assembly."

NOTE:

1. Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to do these adjustments only after all repairs and replacements have been completed. Also, do not attempt these adjustments unless the proper equipment is available.
2. To perform these alignment / confirmation procedures, make sure that the tracking control is set in the center position: Press either "CHANNEL ▼" or "CHANNEL ▲" button on the front panel first, then the "PLAY" button on the front panel.

Test Equipment Required

1. Oscilloscope: Dual-trace with 10:1 probe,
   V-Range: 0.001~50V/Div.,
   F-Range: DC~AC-20MHz
2. Alignment Tape (FL8A)

Head Switching Position Adjustment

Purpose:

To determine the Head Switching position during playback.

Symptom of Misadjustment:

May cause Head Switching noise or vertical jitter in the picture.

Test point	Adj.Point	Mode	Input
TP751(V-OUT) TP302(RF-SW) GND	VR501 (Switching Point) (MAIN CBA)	PLAY (SP)	-----
Tape	**Measurement Equipment**	**Spec.**	
FL8A	Oscilloscope	6.5H±1H (412.7μs±63.5μs)	

Connections of Measurement Equipment

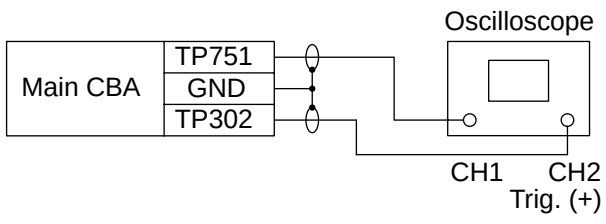
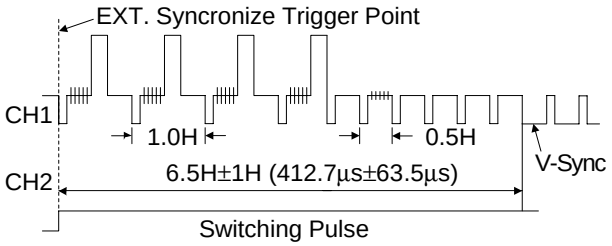


Figure 1



Reference Notes:

Playback the Alignment tape and adjust VR501 so that the V-sync front edge of the CH1 video output waveform is at the 6.5H±1H (412.7μs±63.5μs) delayed position from the rising edge of the CH2 head switching pulse waveform.

FIRMWARE RENEWAL MODE

[DVC860E]

1. Turn the power on and remove the disc on the tray.
2. To put the DVD player into version up mode, press [9], [8], [7], [6], and [SEARCH MODE] buttons on the remote control unit in that order. The tray will open automatically.
   Fig. a appears on the screen and Fig. b appears on the VFD.

"*******" differ depending on the models.

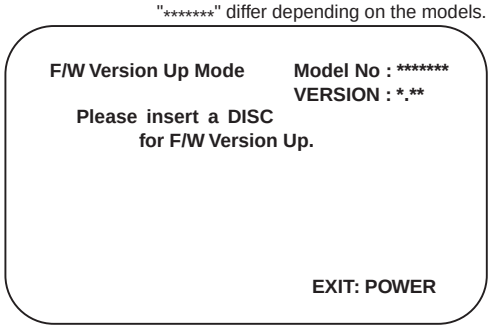


Fig. a Version Up Mode Screen

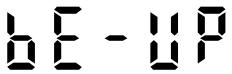


Fig. b VFD in Version Up Mode

   The DVD player can also enter the version up mode with the tray open. In this case, Fig. a will be shown on the screen while the tray is open.
3. Load the disc for version up.
4. The DVD player enters the F/W version up mode automatically. Fig. c appears on the screen and Fig. d appears on the VFD. If you enter the F/W for different models, “Disc Error” will appear on the screen, then the tray will open automatically.

"*******" differ depending on the models.

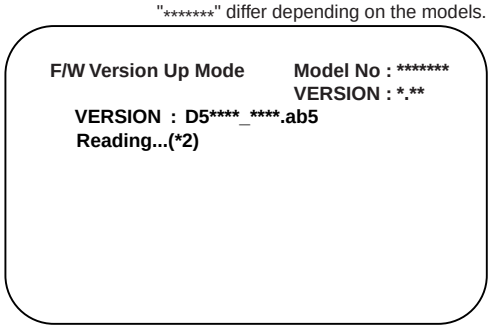


Fig. c Programming Mode Screen

Fig. d VFD in Programming Mode (Example)

   The appearance shown in (*2) of Fig. c is described as follows:

No.	Appearance	State
1	Reading...	Sending files into the memory
2	Erasing...	Erasing previous version data
3	Programming...	Writing new version data

5. After programming is finished, the tray opens automatically. Fig. e appears on the screen and the checksum in (*3) of Fig. e appears on the VFD. (Fig. f)

"*******" differ depending on the models.

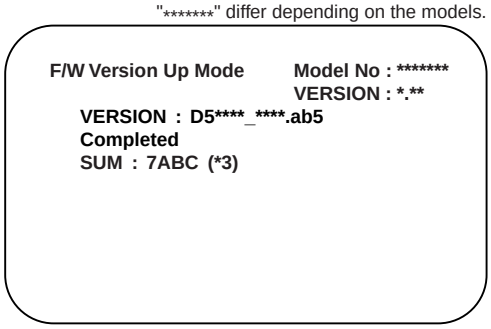


Fig. e Completed Program Mode Screen

Fig. f VFD upon Finishing the Programming Mode (Example)

   At this time, no buttons are available.
6. Remove the disc on the tray.
7. Unplug the AC cord from the AC outlet. Then plug it again.
8. Turn the power on by pressing the [POWER] button and the tray will close.
9. Press [1], [2], [3], [4], and [DISPLAY] buttons on the remote control unit in that order.
   Fig. g appears on the screen.

"*******" differ depending on the models.

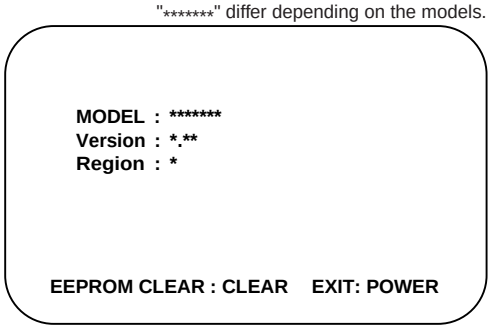


Fig. g

10. Press [CLEAR] button on the remote control unit.
    Fig. h appears on the screen.

"*******" differ depending on the models.

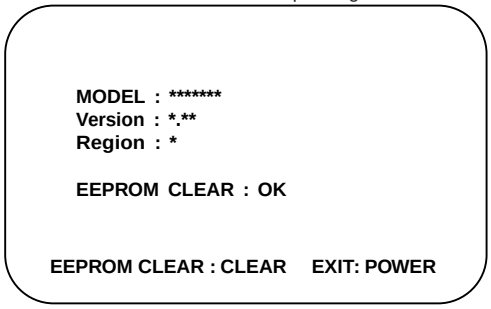


Fig. h

    When “OK” appears on the screen, the factory default will be set. Then the firmware renewal mode is complete.
11. To exit this mode, press [POWER] button.

[DVC840E/DVC845E/EWD2204]

1. Turn the power on and remove the disc on the tray.
2. To put the DVD player into version up mode, press [9], [8], [7], [6], and [SEARCH MODE] buttons on the remote control unit in that order. The tray will open automatically.
   Fig. a appears on the screen.

"*******" differ depending on the models.

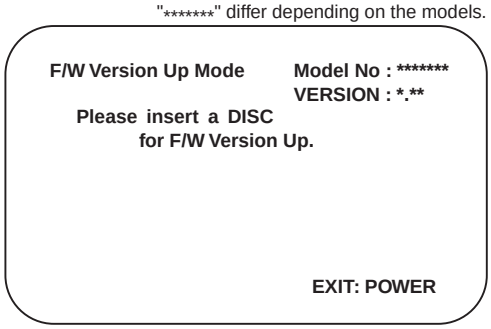


Fig. a Version Up Mode Screen

   The DVD player can also enter the version up mode with the tray open. In this case, Fig. a will be shown on the screen while the tray is open.
3. Load the disc for version up.
4. The DVD player enters the F/W version up mode automatically. Fig. c appears on the screen. If you enter the F/W for different models, “Disc Error” will appear on the screen, then the tray will open automatically.

"*******" differ depending on the models.

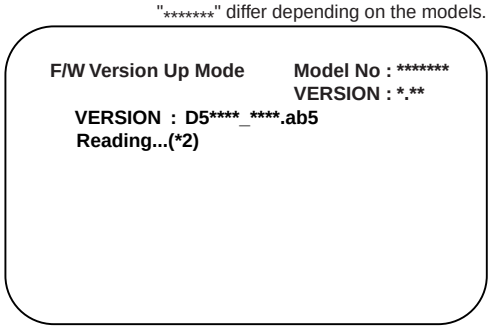


Fig. c Programming Mode Screen

   The appearance shown in (*2) of Fig. c is described as follows:

No.	Appearance	State
1	Reading...	Sending files into the memory
2	Erasing...	Erasing previous version data
3	Programming...	Writing new version data

5. After programming is finished, the tray opens automatically. Fig. e appears on the screen and the checksum in (*3) of Fig. e.

"*******" differ depending on the models.

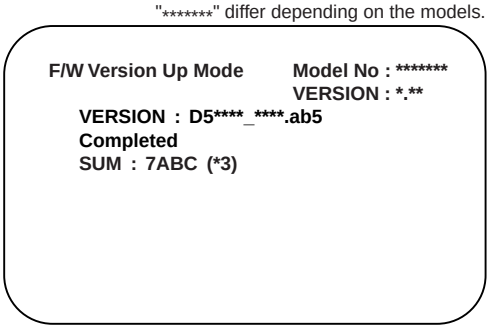


Fig. e Completed Program Mode Screen

   At this time, no buttons are available.
6. Remove the disc on the tray.
7. Unplug the AC cord from the AC outlet. Then plug it again.
8. Turn the power on by pressing the [POWER] button and the tray will close.
9. Press [1], [2], [3], [4], and [DISPLAY] buttons on the remote control unit in that order.
   Fig. g appears on the screen.

"*******" differ depending on the models.

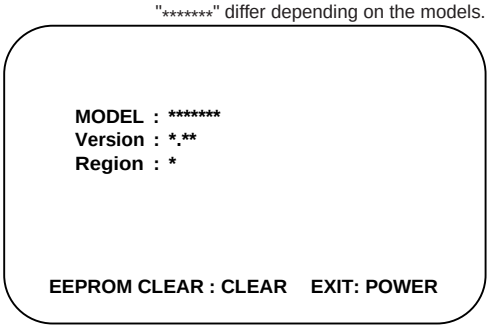


Fig. g

10. Press [CLEAR] button on the remote control unit.
    Fig. h appears on the screen.

"*******" differ depending on the models.

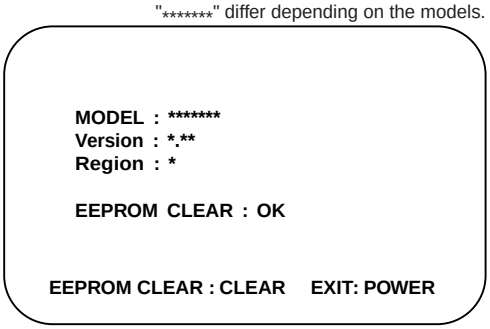
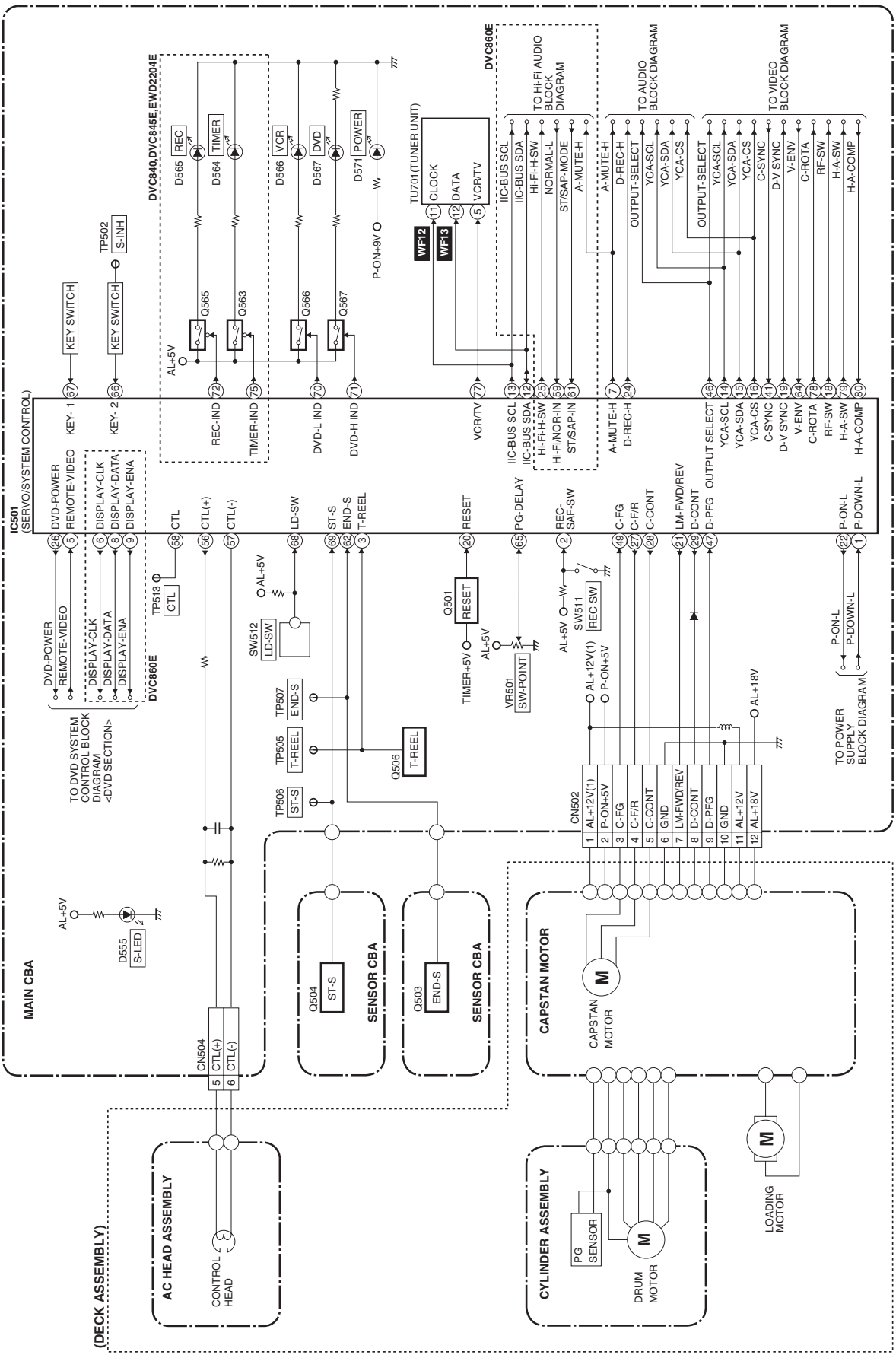


Fig. h

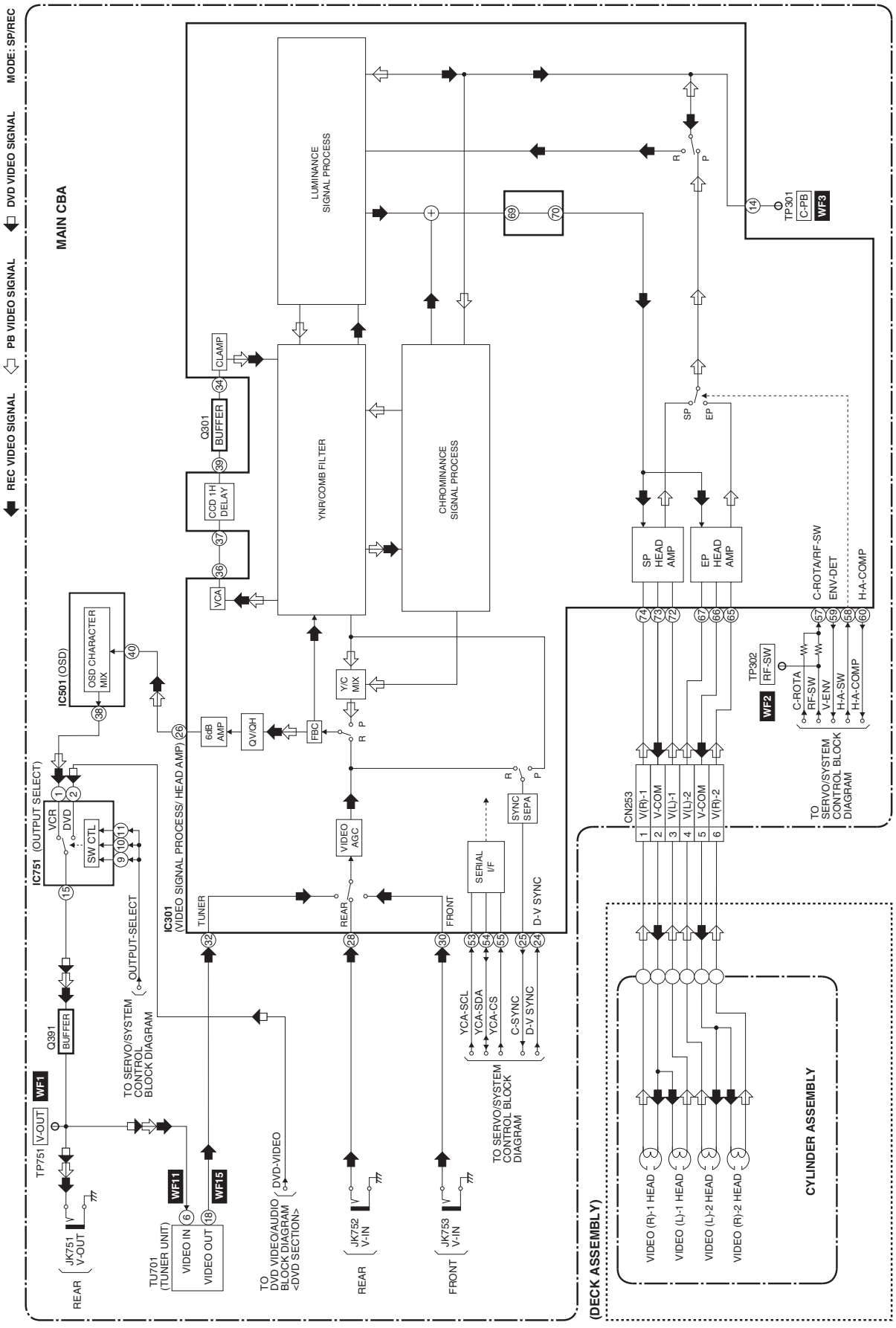
    When “OK” appears on the screen, the factory default will be set. Then the firmware renewal mode is complete.
11. To exit this mode, press [POWER] button.

BLOCK DIAGRAMS <VCR SECTION>

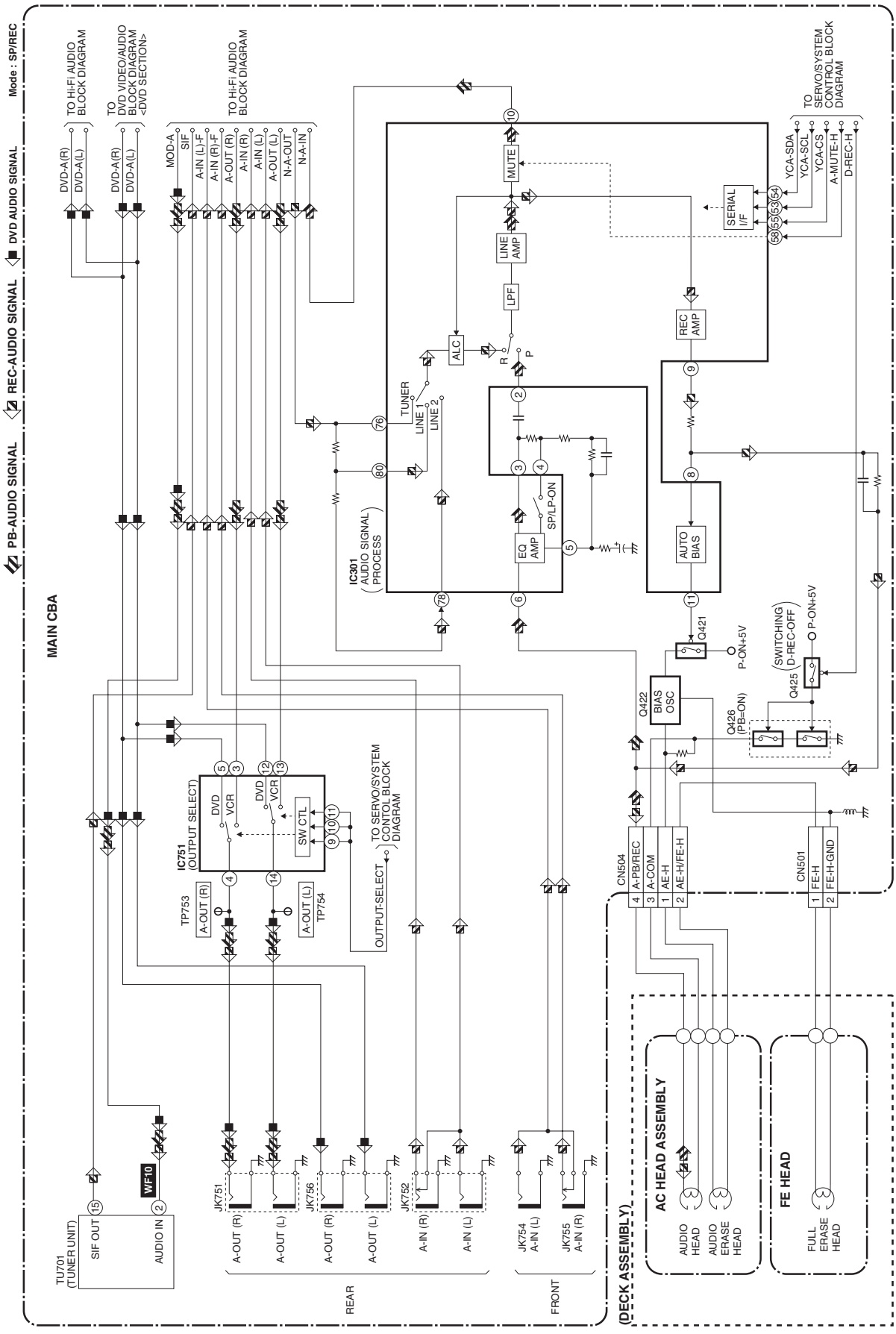
Servo / System Control Block Diagram



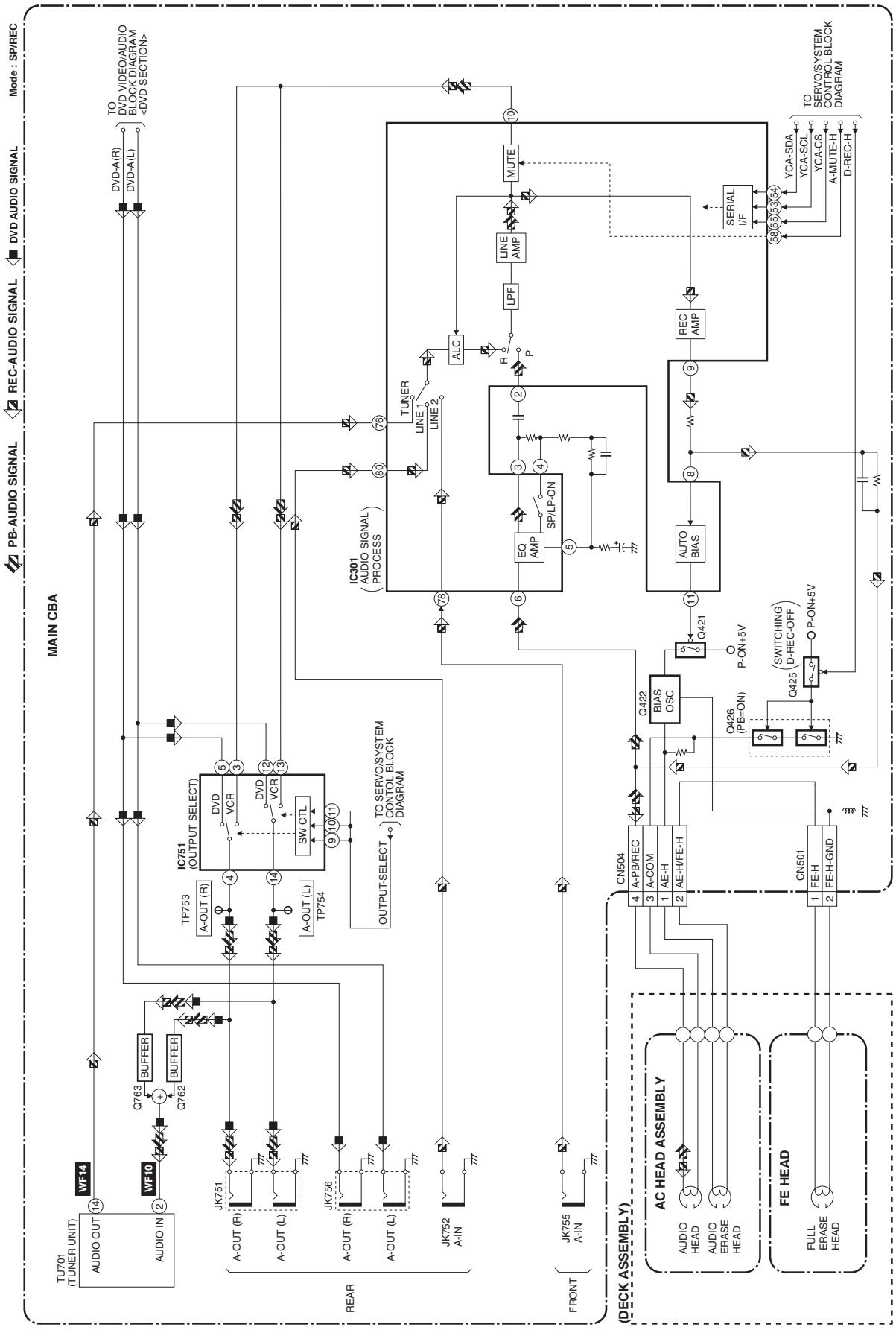
Video Block Diagram



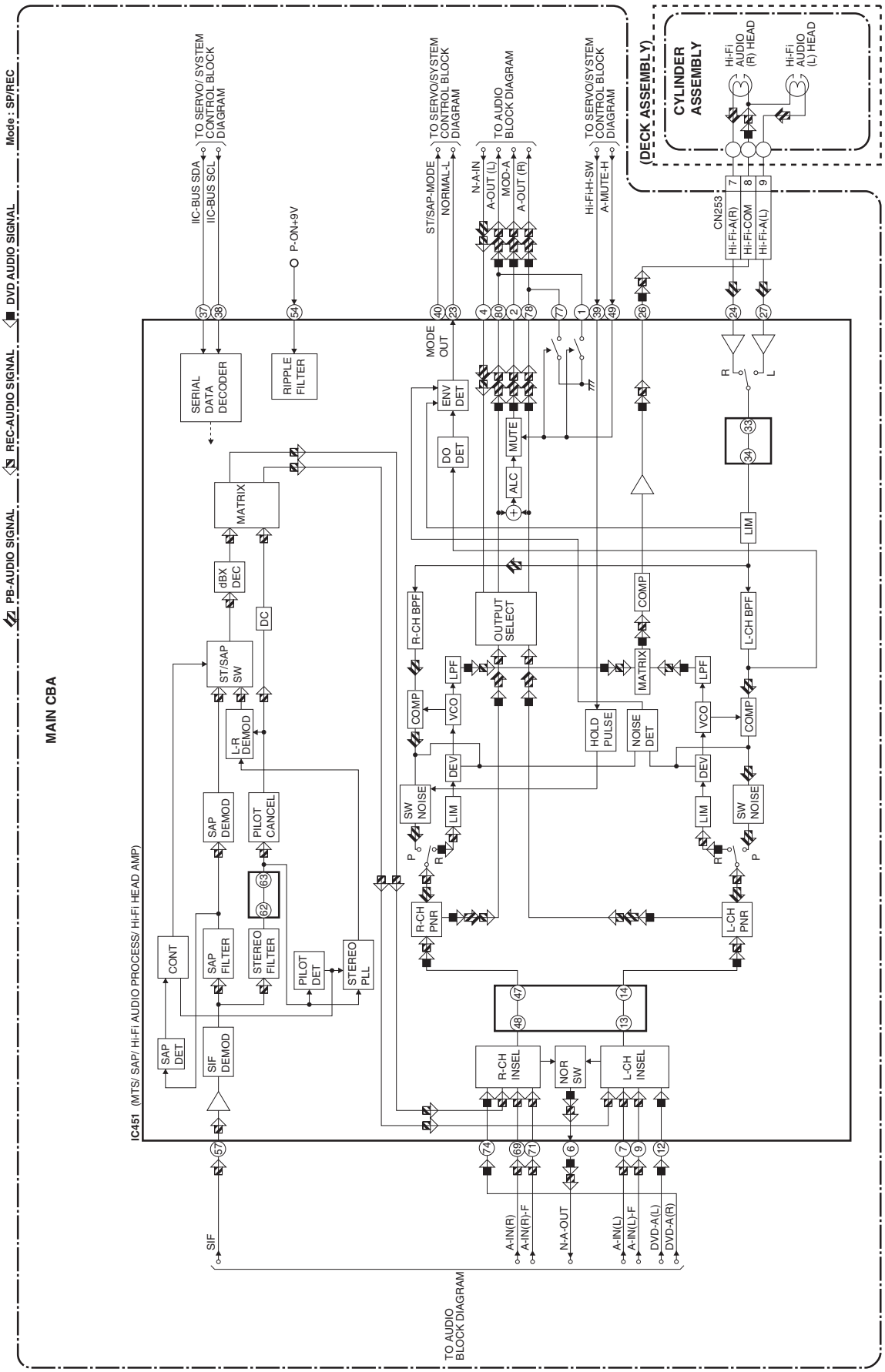
Audio Block Diagram (DVC860E)



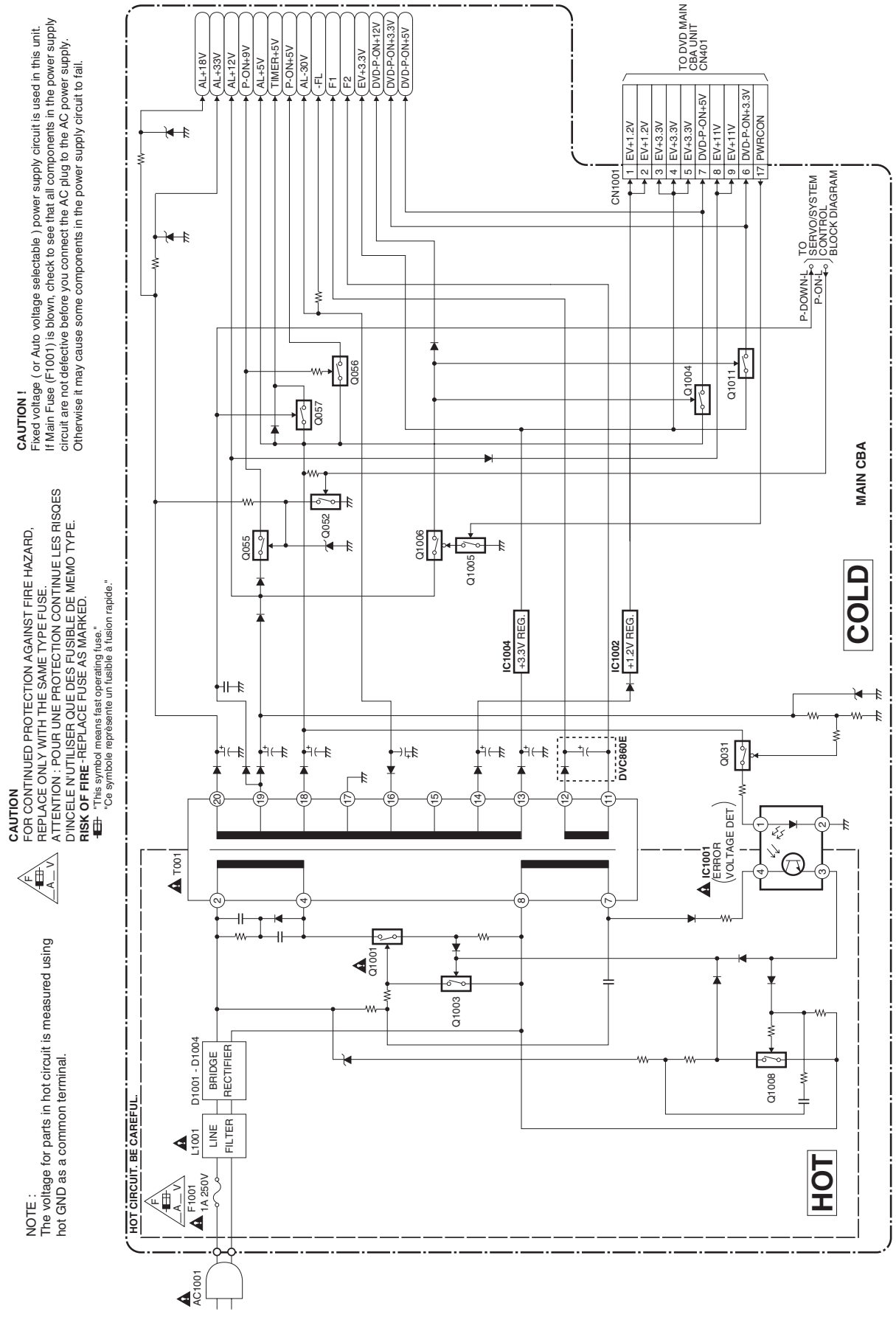
Audio Block Diagram (DVC840E, DVC845E, EWD2204)



Hi-Fi Audio Block Diagram (DVC860E)

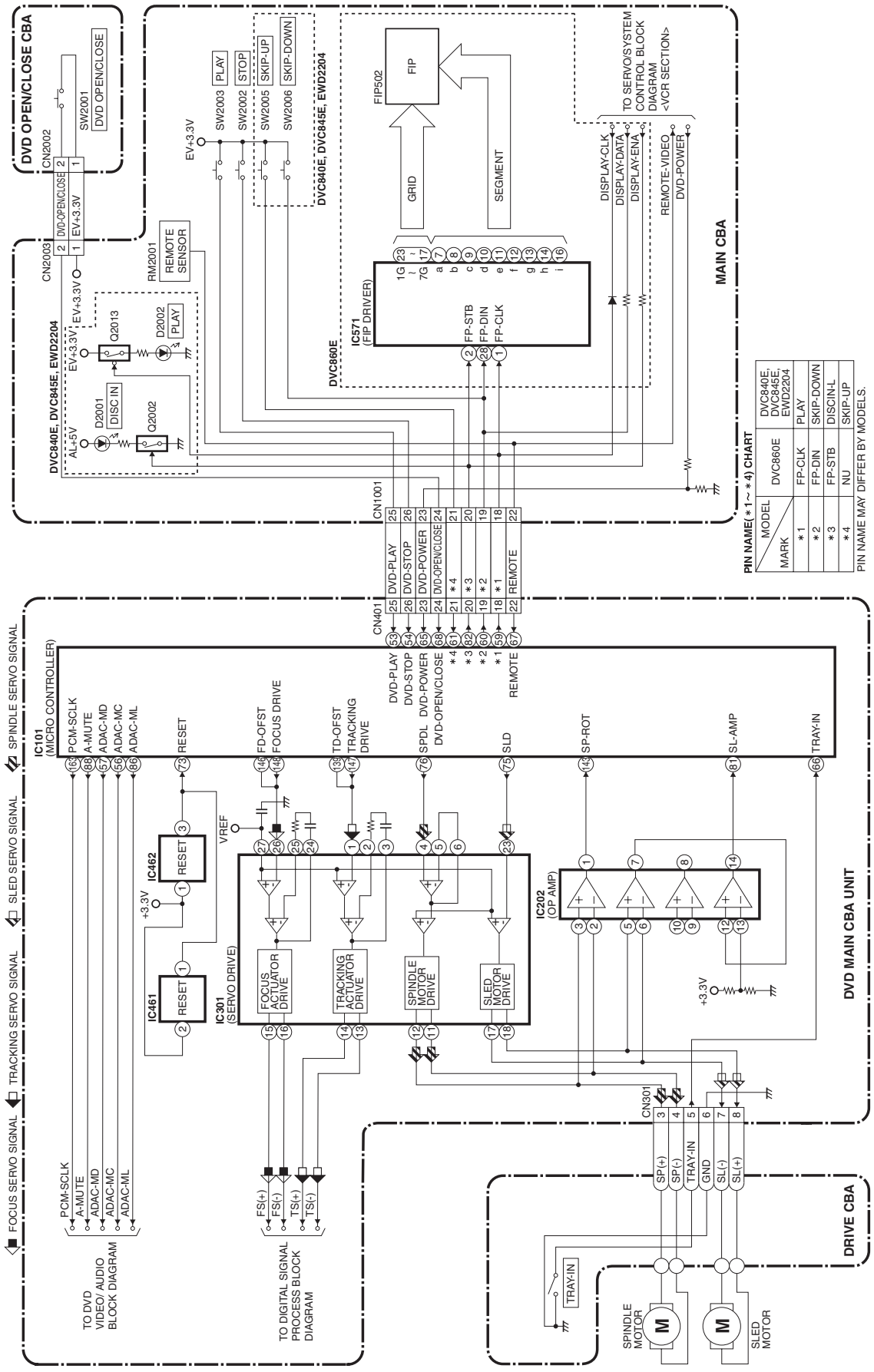


Power Supply Block Diagram

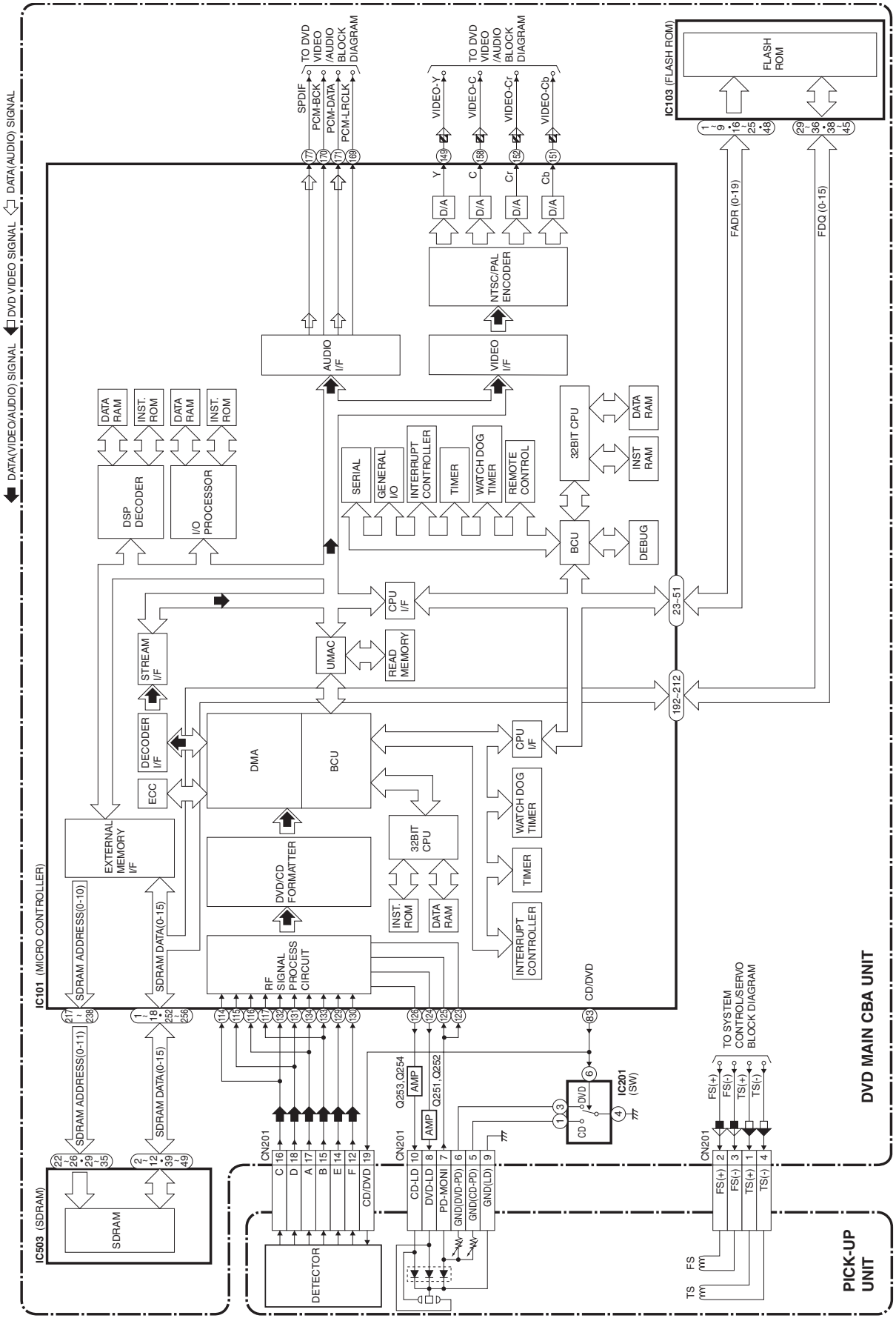


BLOCK DIAGRAMS <DVD SECTION>

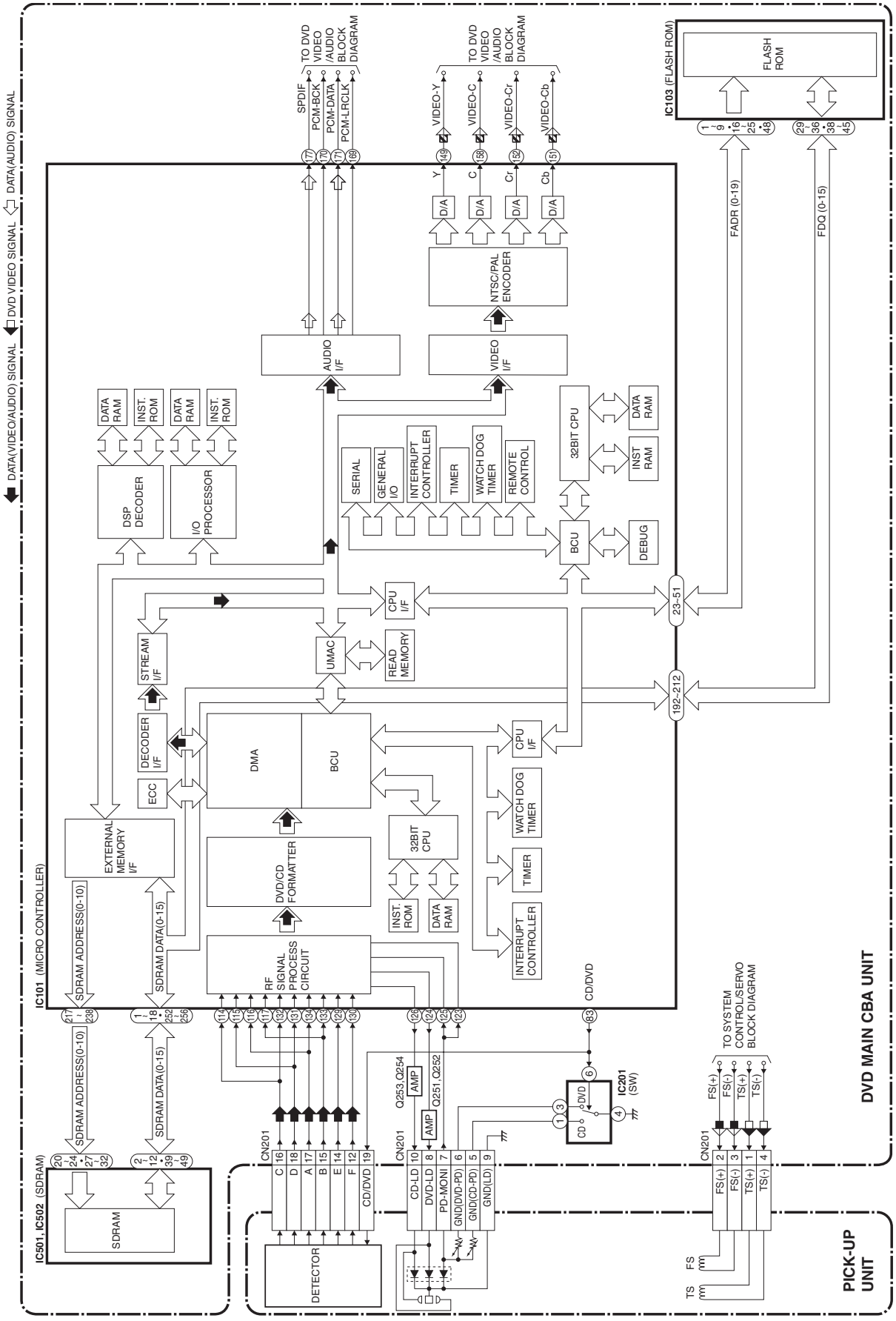
DVD System Control / Servo Block Diagram



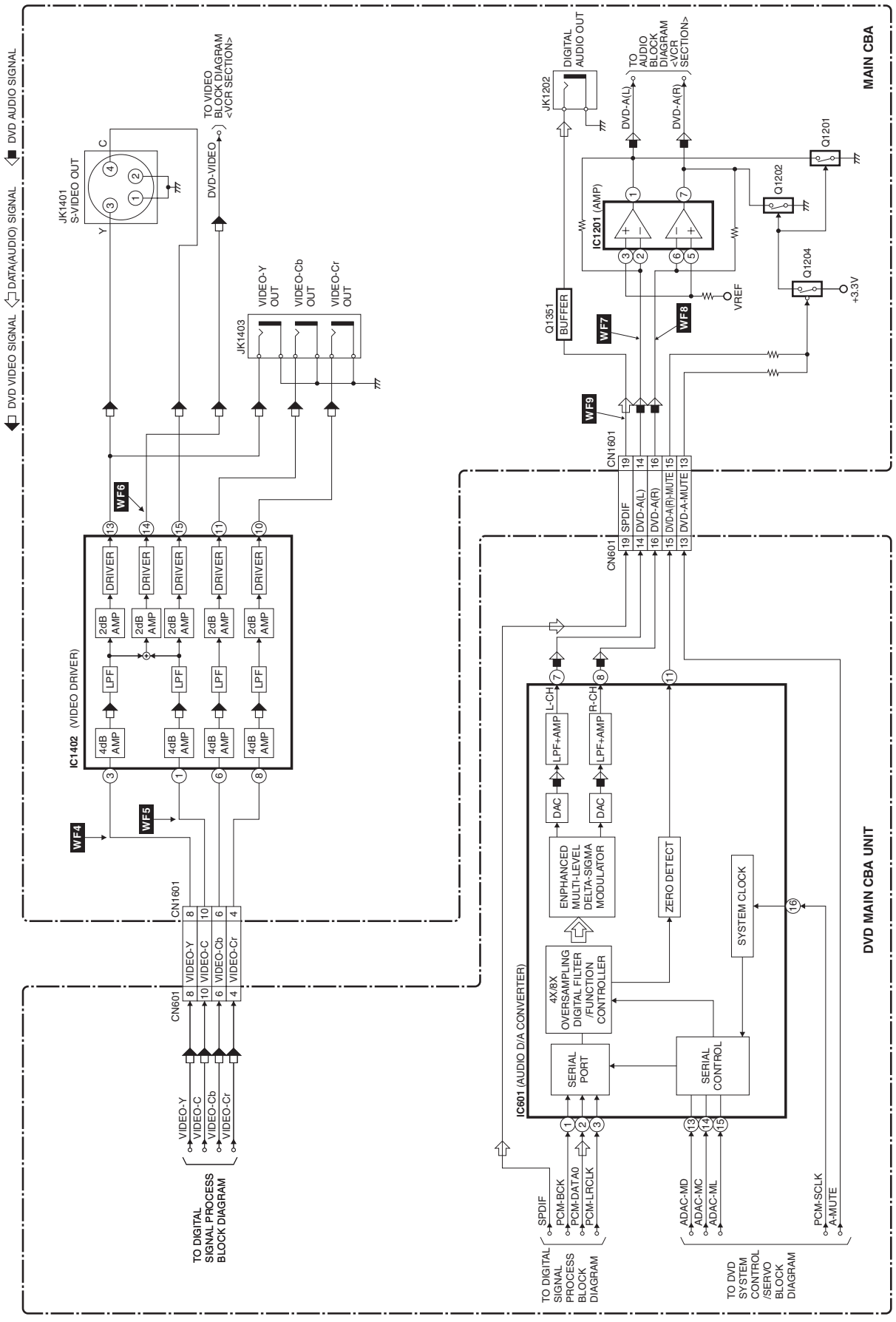
Digital Signal Process Block Diagram (DVC860E)



Digital Signal Process Block Diagram (DVC840E, DVC845E, EWD2204)



DVD Video / Audio Block Diagram



FUNCTION INDICATOR SYMBOLS

Note:

The following symbols will appear on the indicator panel to indicate the current mode or operation of the VCR. On-screen modes will also be momentarily displayed on the tv screen when you press the operation buttons.

Led Mode	Indicator Active
When reel and capstan mechanism is not functioning correctly	"EJECT ⏏ R" is displayed on a TV screen. (Refer to Fig. 1.)
When tape loading mechanism is not functioning correctly	"EJECT ⏏ T" is displayed on a TV screen. (Refer to Fig. 2.)
When cassette loading mechanism is not functioning correctly	"EJECT ⏏ C" is displayed on a TV screen. (Refer to Fig. 3.)
When the drum is not working properly	"EJECT ⏏ D" is displayed on a TV screen. (Refer to Fig. 4.)

TV screen

Note:

OSD for mechanical error will be displayed for 5 sec. after the mechanical error occurs.

When reel and capstan mechanism is not functioning correctly

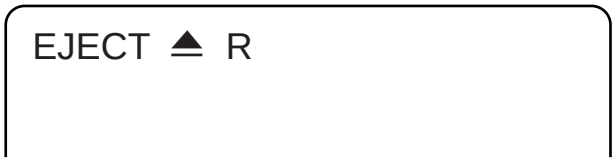


Fig. 1

When tape loading mechanism is not functioning correctly

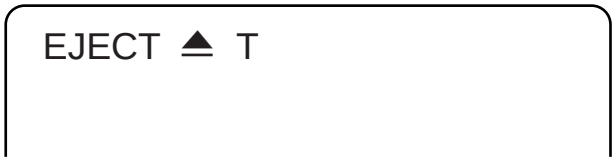


Fig. 2

When cassette loading mechanism is not functioning correctly

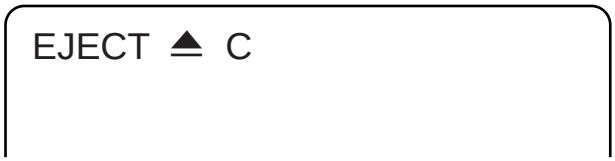


Fig. 3

When the drum is not working properly

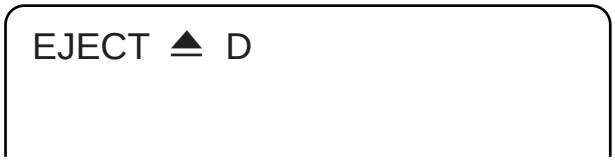


Fig. 4

SCHEMATIC DIAGRAMS / CBA'S AND TEST POINTS

Standard Notes

WARNING

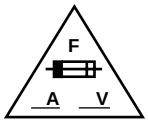
Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark " ⚠ " in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Notes:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
2. All resistance values are indicated in ohms ($K=10^3$, $M=10^6$).
3. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
4. All capacitance values are indicated in μF ($P=10^{-6}$ μF).
5. All voltages are DC voltages unless otherwise specified.

LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. CAUTION:



FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQES D'INCELE N'UTILISER QUE DES FUSIBLE DE MEMO TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.

This symbol means fast operating fuse.
Ce symbole représente un fusible à fusion rapide.

2. CAUTION:

Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F1001) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

3. Note:

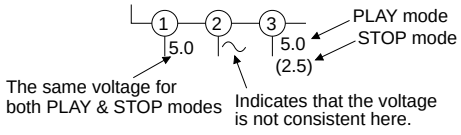
(1) Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.

(2) To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

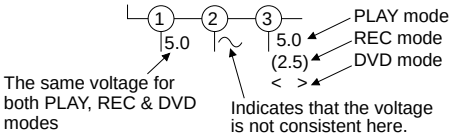
4. Mode: SP/REC

5. Voltage indications for PLAY and REC modes on the schematics are as shown below:

< DVD Section >



< VCR Section >



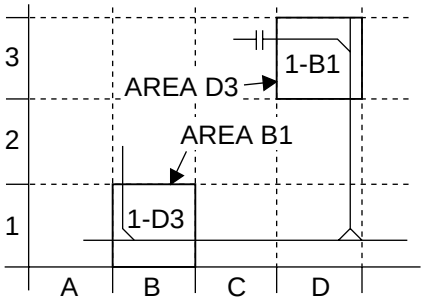
Unit: Volts

6. How to read converged lines

1-D3
Distinction Area
Line Number
(1 to 3 digits)

Examples:

1. "1-D3" means that line number "1" goes to area "D3".
2. "1-B1" means that line number "1" goes to area "B1".



7. Test Point Information

: Indicates a test point with a jumper wire across a hole in the PCB.

: Used to indicate a test point with a component lead on foil side.

: Used to indicate a test point with no test pin.

: Used to indicate a test point with a test pin.

Main 1/8 Schematic Diagram < VCR Section >

REC VIDEO SIGNAL
REC AUDIO SIGNAL
PB VIDEO SIGNAL
PB AUDIO SIGNAL

SYSCON/TIMER/SERVO BLOCK

IC501
QSZAAORMS017
(SERVO/SYSTEM CONTROL)

MAIN CBA

MAIN 1/8

Ref No.	Position
IC	
IC501	C-3
TRANSISTORS	
Q501	D-1
Q506	A-2
CONNECTORS	
CN501	A-4
CN502	F-4
CN504	A-4
VARIABLE RESISTOR	
VR501	B-4
TEST POINTS	
TP505	B-2
TP513	B-4

Main 2/8 & Sensor Schematic Diagram < VCR Section >

REC VIDEO SIGNAL
REC AUDIO SIGNAL
DVD VIDEO + PB VIDEO SIGANL
PB AUDIO SIGNAL
DVD AUDIO SIGNAL

FIP502 MATRIX CHART

	7G	6G	5G	4G	3G	2G	1G
a	∞	a	a	a	a	a	SACD
b	REPEAT	b	b	b	b	b	PSCAN
c	A-	c	c	c	c	c	DVD
d	B	d	d	d	d	d	A
e	ALL	e	e	e	e	e	P
f	f	f	f	f	f	f	M
g	▶	g	g	g	g	g	HD
h	▮	:	GROUP	:	CHP	TRK.	V
i	i	TITLE	VCR	.	◷	REC	CD

MAIN 2/8

Ref No.	Position
IC	
IC571	K-3
TRANSISTORS	
Q503	L-1
Q504	L-1
Q563	H-3
Q565	H-3
Q566	H-3
Q567	I-3
TEST POINTS	
TP502	I-4
TP506	K-1
TP507	K-1

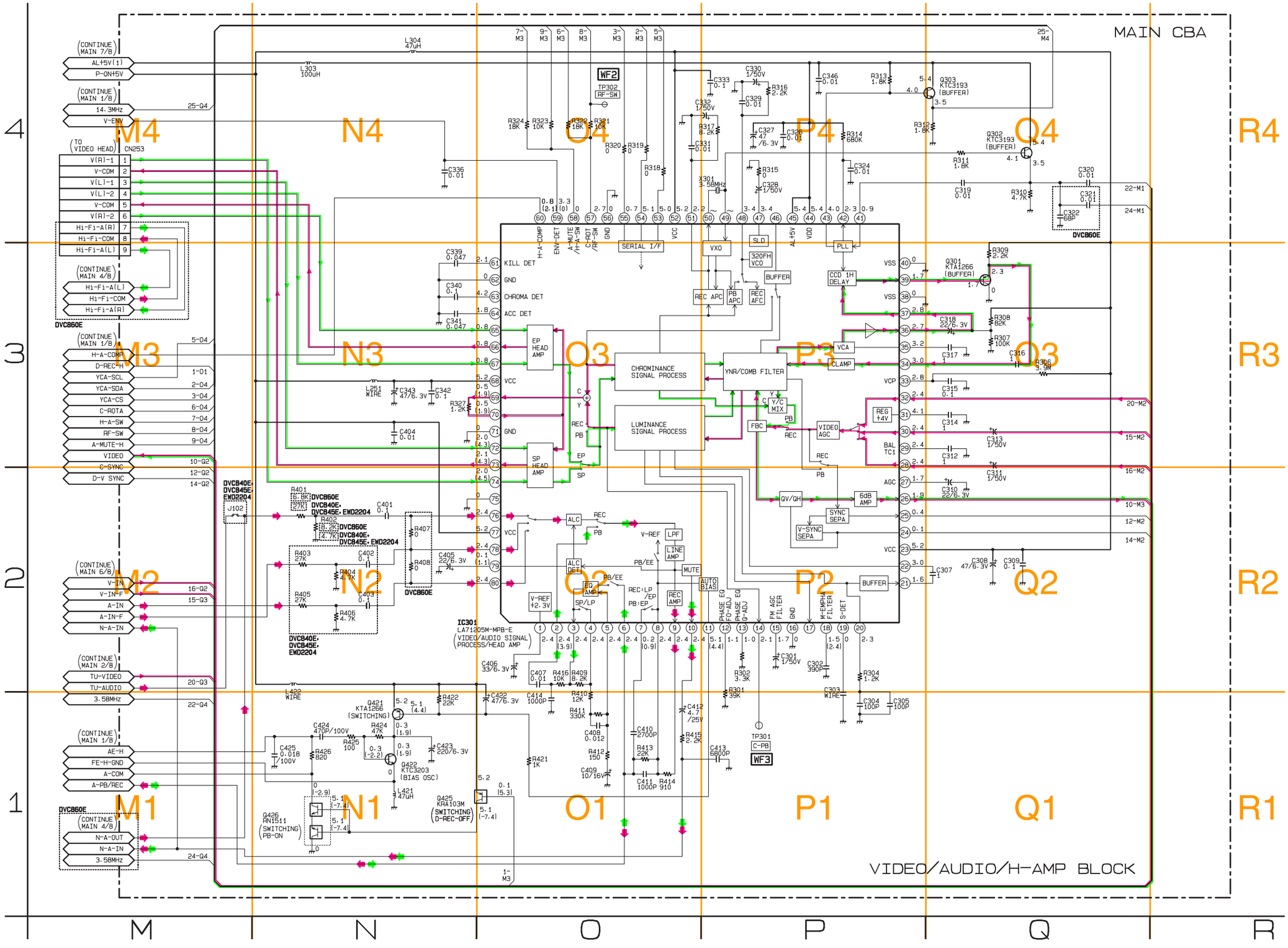
MAIN CBA
SYSCON/TIMER/SERVO BLOCK
TUNER BLOCK
DVC860E
DVC840E, DVC845E, EWD2204
FIP502 7-BT-298N (FIP)
IC571 PT6313-S-TP (FIP DRIVER)
TU701 UTUNNTUSP026 (TUNER UNIT)
SW512 SSS-53MD
SENSOR CBA
Q503 PT264-6B-12 (END-S)
Q504 PT264-6B-12 (ST-S)
UNLESS OTHERWISE SPECIFIED: SWITCHES ARE KSM0614B.

Main 3/8 Schematic Diagram < VCR Section >

REC VIDEO SIGNAL
REC AUDIO SIGNAL
PB VIDEO SIGNAL
DVD VIDEO + PB VIDEO SIGNAL
PB AUDIO SIGNAL

MAIN 3/8

Ref No.	Position
IC	
IC301	O-2
TRANSISTORS	
Q301	Q-3
Q302	Q-4
Q303	Q-4
Q421	N-1
Q422	N-1
Q425	N-1
Q426	N-1
CONNECTOR	
CN253	M-4
TEST POINTS	
TP301	P-1
TP302	O-4

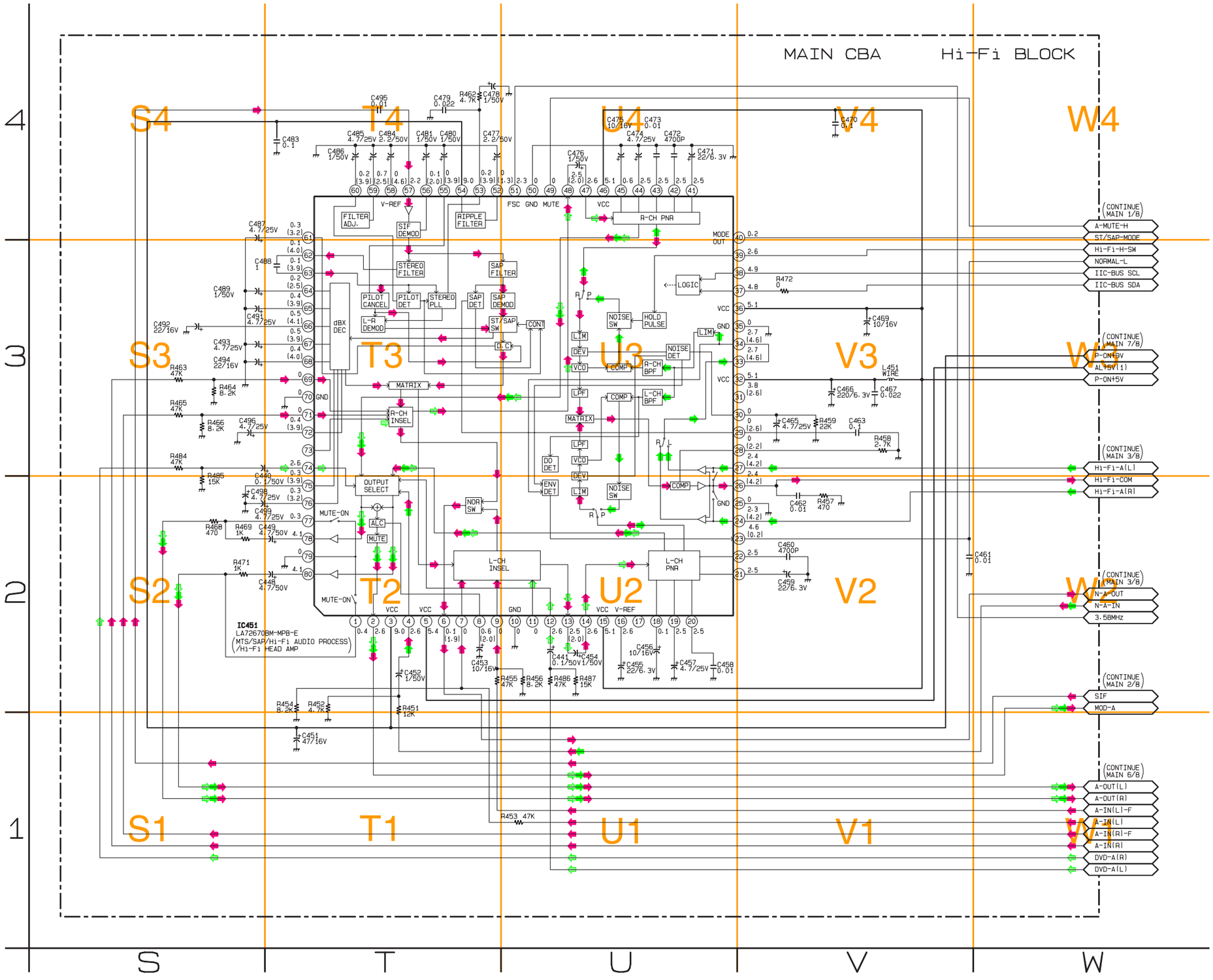


Main 4/8 Schematic Diagram < VCR Section > (DVC860E)

REC Audio Signal

PB Audio Signal

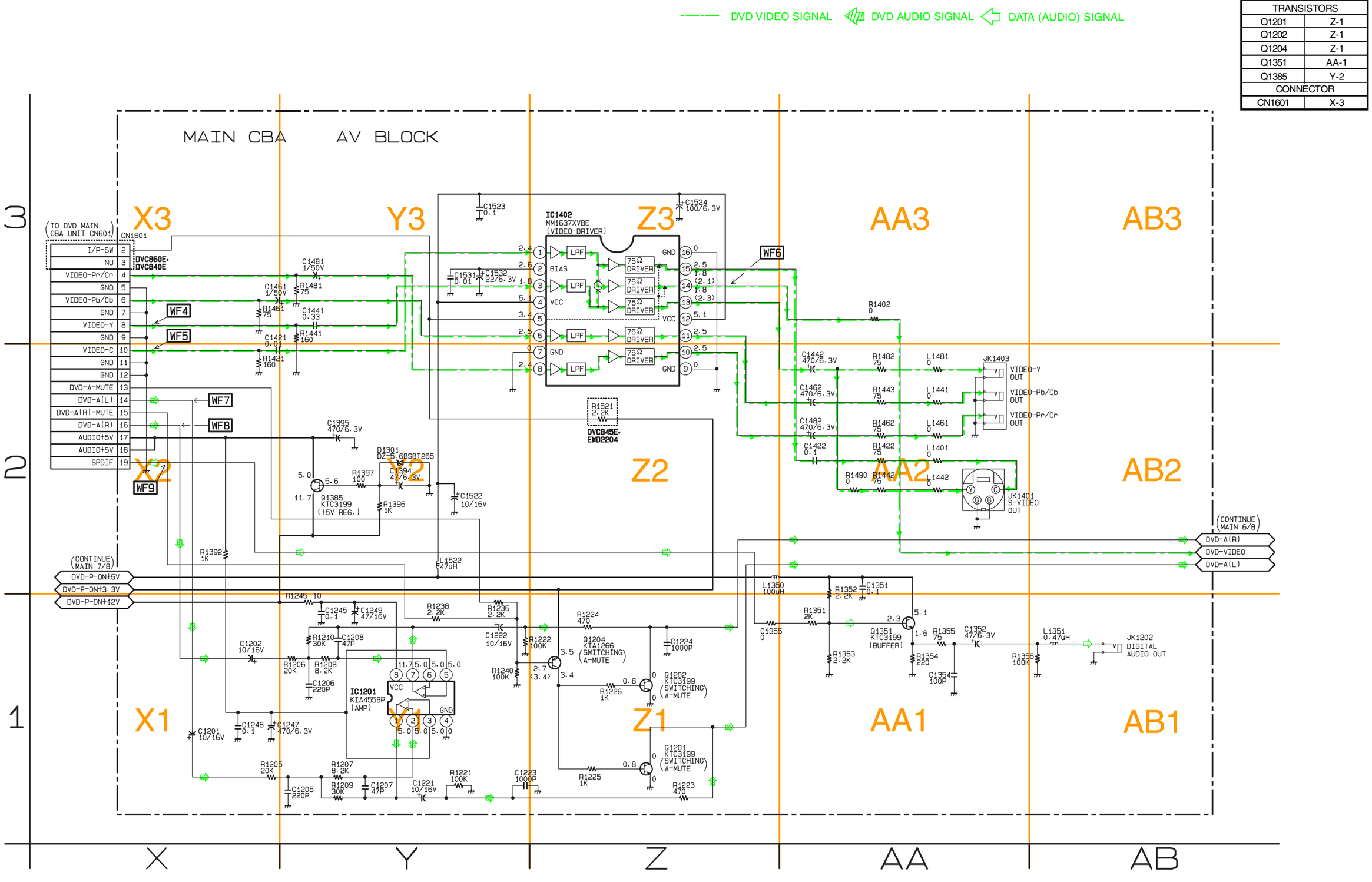
DVD AUDIO SIGNAL



Main 5/8 Schematic Diagram < VCR Section >

MAIN 5/8

Ref No.	Position
ICS	
IC1201	Y-1
IC1402	Z-3
TRANSISTORS	
Q1201	Z-1
Q1202	Z-1
Q1204	Z-1
Q1351	AA-1
Q1385	Y-2
CONNECTOR	
CN1601	X-3

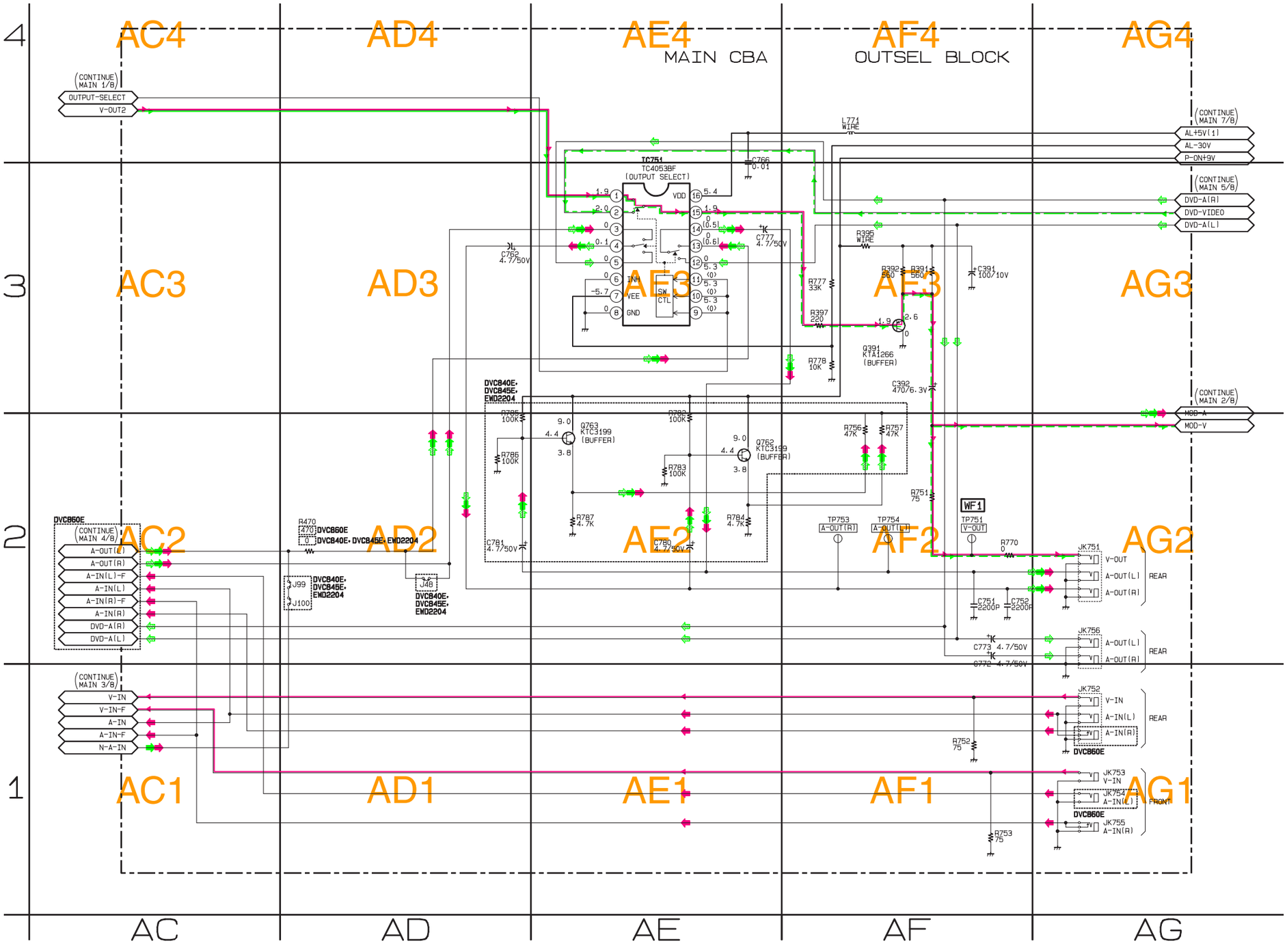


Main 6/8 Schematic Diagram < VCR Section >

REC VIDEO SIGNAL
REC AUDIO SIGNAL
DVD VIDEO SIGNAL
PB VIDEO SIGNAL
DVD VIDEO + PB VIDEO SIGANL
PB AUDIO SIGNAL
DVD AUDIO SIGNAL

MAIN 6/8

Ref No.	Position
IC	
IC751	AE-3
TRANSISTORS	
Q391	AF-3
Q762	AE-2
Q763	AE-2
TEST POINTS	
TP751	AF-2
TP753	AF-2
TP754	AF-2



Main 7/8 & DVD Open/Close Schematic Diagram < VCR Section >

PIN NAME (*1～*4) CHART

MARK \ MODEL	DVC860E	DVC840E, DVC845E, EWD2204
*1	FP-CLK	PLAY
*2	FP-DIN	SKIP-DOWN
*3	FP-STB	DISCIN-L
*4	NU	SKIP-UP

PIN NAME MAY DIFFER BY MODELS.

MAIN 7/8

Ref No.	Position
ICS	
IC1002	AI-4
IC1004	AJ-3
TRANSISTORS	
Q052	AL-4
Q055	AK-3
Q056	AL-3
Q057	AK-3
Q1004	AJ-2
Q1005	AK-2
Q1006	AL-2
Q1011	AI-2
Q2002	AK-1
Q2013	AI-1
CONNECTORS	
CN1001	AH-3
CN2003	AL-1

Main 8/8 Schematic Diagram < VCR Section >

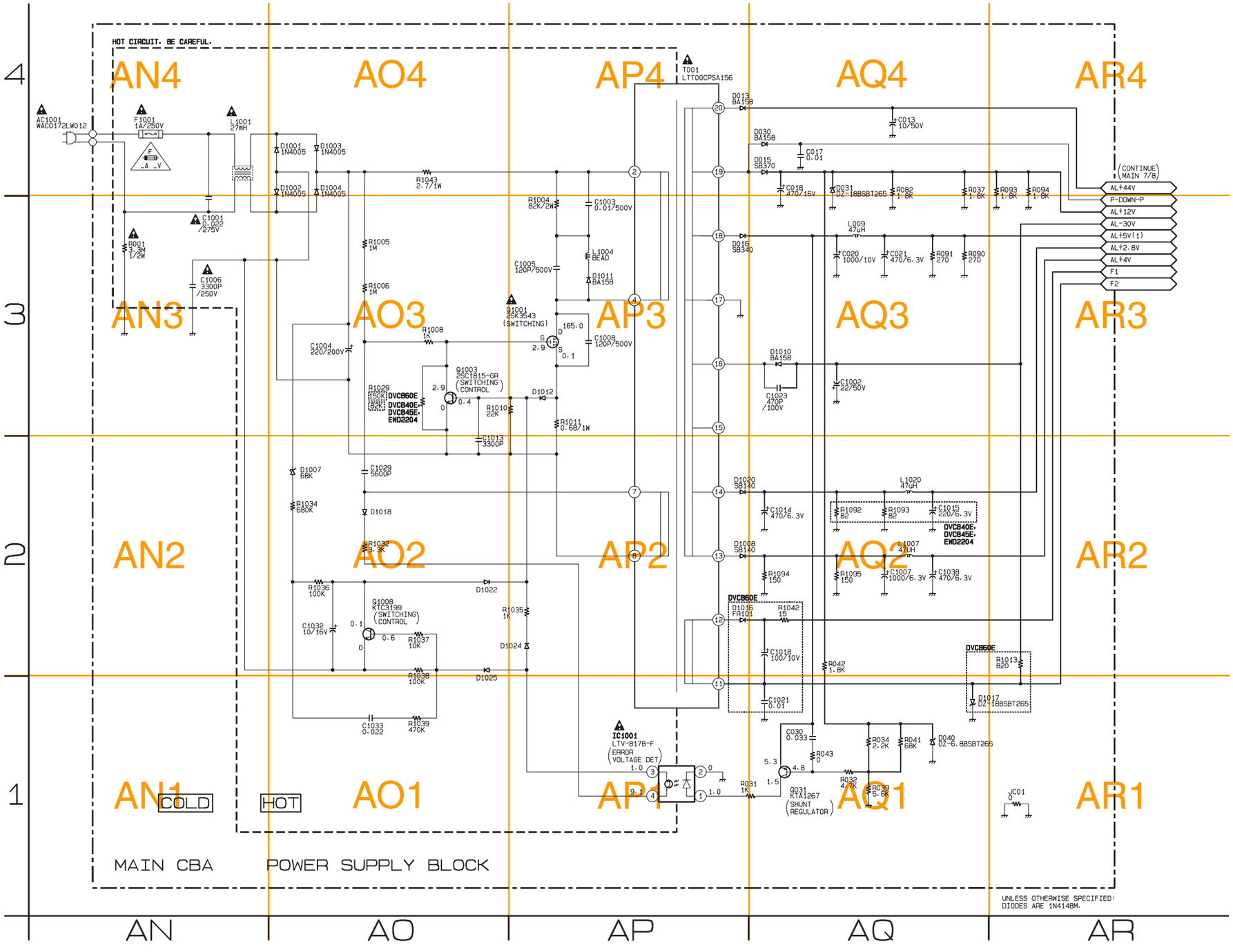
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION : POUR UNE PROTECTION CONTINUE LES RISQES D'INCELE N'UTILISER QUE DES FUSIBLE DE MÊME TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.
"This symbol means fast operating fuse."
"Ce symbole reprèsente un fusible à fusion rapide."

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit. If Main Fuse (F1001) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

NOTE :
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

MAIN 8/8

Ref No.	Position
ICS	
IC1001	AP-1
TRANSISTORS	
Q031	AQ-1
Q1001	AP-3
Q1003	AO-3
Q1008	AO-2



Main CBA Top View

CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION : POUR UNE PROTECTION CONTINUE LES RISQES
D'INCELE N'UTILISER QUE DES FUSIBLE DE MÊME TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.

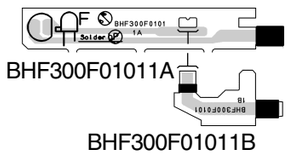
"This symbol means fast operating fuse."
"Ce symbole représente un fusible à fusion rapide."

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F1001) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

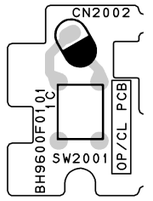
NOTE :
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

BECAUSE A HOT CHASSIS GROUND IS PRESENT IN THE POWER SUPPLY CIRCUIT , AN ISOLATION TRANSFORMER MUST BE USED. ALSO , IN ORDER TO HAVE THE ABILITY TO INCREASE THE INPUT SLOWLY , WHEN TROUBLESHOOTING THIS TYPE POWER SUPPLY CIRCUIT , A VARIABLE ISOLATION TRANSFORMER IS REQUIRED.

Sensor CBA Top View



DVD Open/Close CBA Top View



BH9600F01011C

Main CBA Bottom View

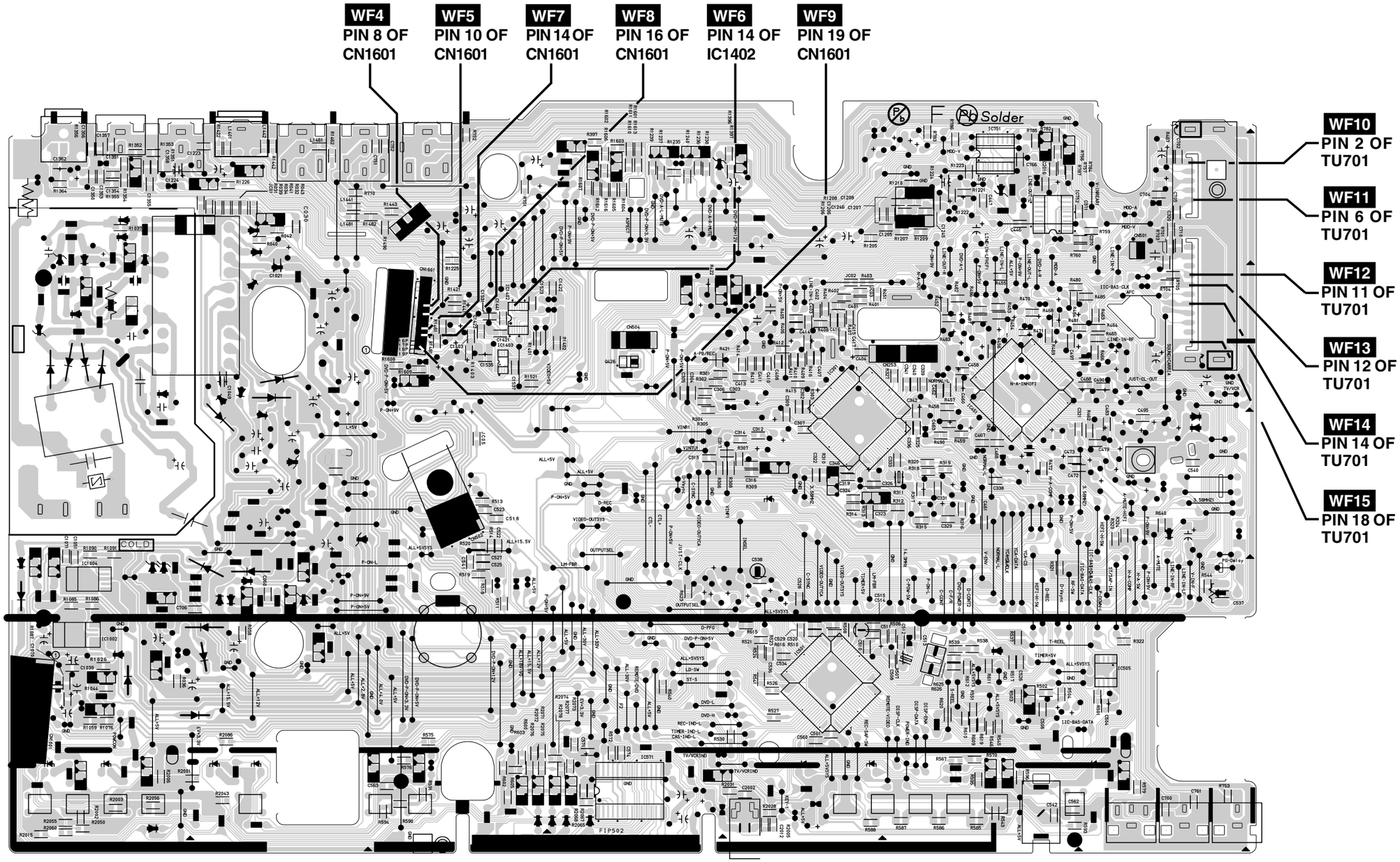
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION : POUR UNE PROTECTION CONTINUE LES RISQES
D'INCELE N'UTILISER QUE DES FUSIBLE DE MÊME TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.

"This symbol means fast operating fuse."
"Ce symbole représente un fusible à fusion rapide."

NOTE :
The voltage for parts in hot circuit is measured
using hot GND as a common terminal.

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F1001) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

BECAUSE A HOT CHASSIS GROUND IS PRESENT IN THE POWER SUPPLY CIRCUIT , AN ISOLATION TRANSFORMER MUST BE USED. ALSO , IN ORDER TO HAVE THE ABILITY TO INCREASE THE INPUT SLOWLY , WHEN TROUBLESHOOTING THIS TYPE POWER SUPPLY CIRCUIT , A VARIABLE ISOLATION TRANSFORMER IS REQUIRED.



MAIN CBA

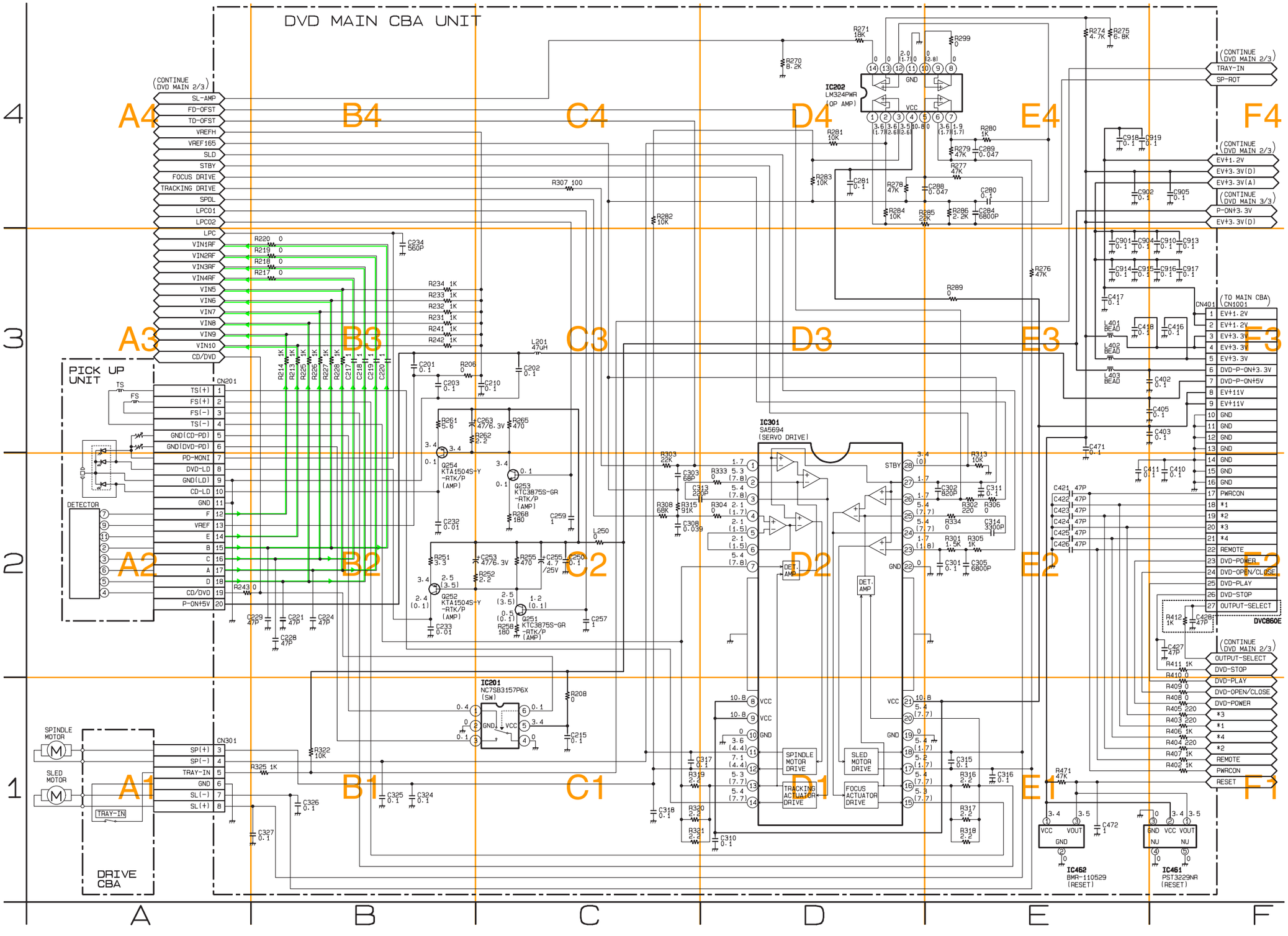
Ref No.	Position
ICS	
IC301	C-4
IC451	B-4
IC501	C-2
IC571	D-1
IC751	B-5
IC1001	F-5
IC1002	G-2
IC1004	G-2
IC1201	B-5
IC1402	E-4
TRANSISTORS	
Q031	F-5
Q052	F-3
Q055	F-2
Q056	F-2
Q057	F-2
Q301	C-3
Q302	C-3
Q303	C-3
Q391	D-5
Q421	D-4
Q422	C-4
Q425	D-4
Q426	D-4
Q501	B-1
Q506	C-3
Q563	B-1
Q565	B-1
Q566	F-1
Q567	E-1
Q762	B-5
Q763	B-5
Q1001	G-4
Q1003	G-4
Q1004	G-3
Q1005	G-1
Q1006	G-2
Q1008	G-5
Q1011	G-2
Q1201	F-5
Q1202	F-5
Q1204	D-5
Q1351	G-5
Q1385	C-5
Q2002	G-1
Q2013	G-1
CONNECTORS	
CL253	B-4
CL501	A-5
CL502	E-3
CL504	D-4
CL1001	G-1
CL1601	E-4
CL2003	G-1
VARIABLE RESISTORS	
VR501	A-2
TEST POINTS	
TP301	A-3
TP302	A-3
TP502	E-1
TP505	A-3
TP506	F-3
TP507	A-3
TP513	A-2
TP751	F-5
TP753	E-5
TP754	F-5

DVD Main 1/3 Schematic Diagram < DVD Section >

DATA(VIDEO+AUDIO) SIGNAL

DVD MAIN 1/3

Ref No.	Position
ICS	
IC201	C-1
IC202	D-4
IC301	D-3
IC461	F-1
IC462	E-1
TRANSISTORS	
Q251	C-2
Q252	B-2
Q253	C-2
Q254	B-2
CONNECTORS	
CN201	A-3
CN301	A-1
CN401	F-3



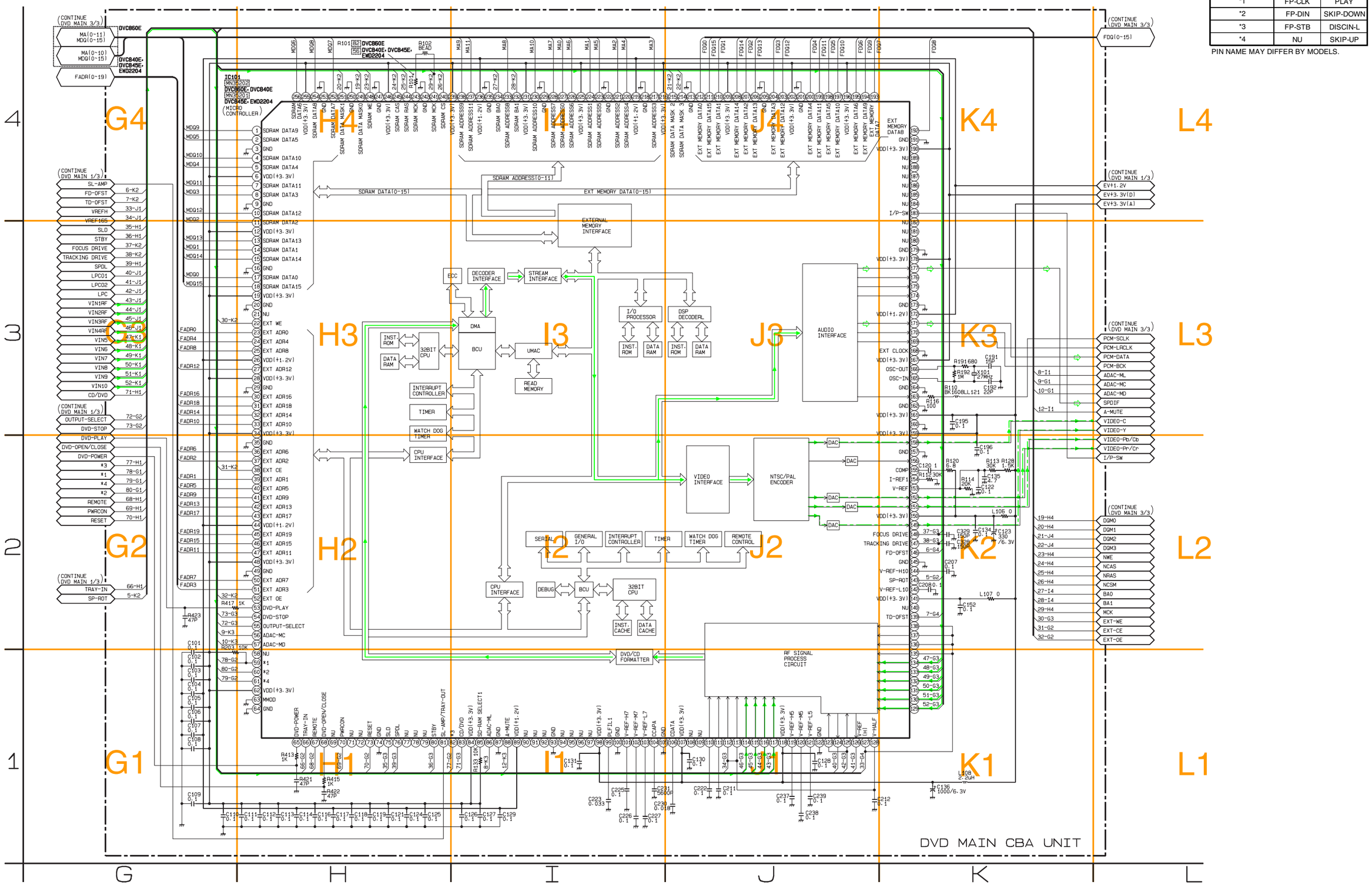
DVD Main 2/3 Schematic Diagram < DVD Section >

DATA(VIDEO+AUDIO) SIGNAL VIDEO SIGNAL DATA(AUDIO) SIGNAL

PIN NAME (*1～*4) CHART

MARK \ MODEL	DVC860E	DVC840E, DVC845E, EWD2204
*1	FP-CLK	PLAY
*2	FP-DIN	SKIP-DOWN
*3	FP-STB	DISCIN-L
*4	NU	SKIP-UP

PIN NAME MAY DIFFER BY MODELS.



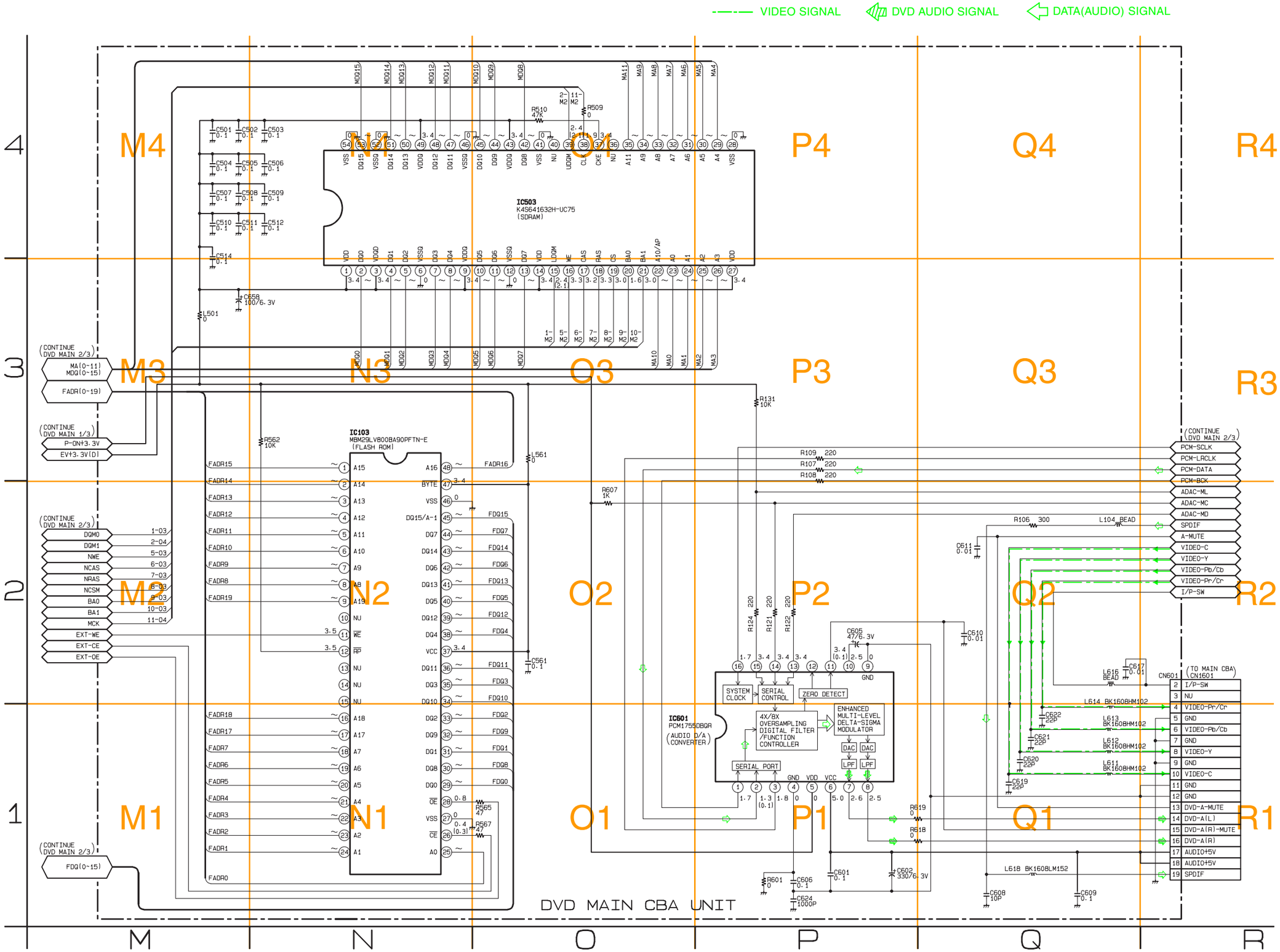
IC101 VOLTAGE CHART

PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP
1	~	~	35	0	0	DVC840E,DVC845E,EWD2204			97	-----	-----	131	2.3	2.3	165	1.7	1.8	199	~	~	233	~	~
2	~	~	36	~	~	61	0	0	98	3.4	3.4	132	2.4	2.3	166	1.7	1.7	200	~	~	234	1.9	2.3
3	0	0	37	~	~	65	0	0	99	0.9	0.8	133	2.4	2.4	167	3.4	3.4	201	0	0	235	0	0
4	~	~	38	0.4	0.3	66	3.4	3.5	100	0	0	134	2.4	2.4	168	0	0	202	3.4	3.4	236	1.3	1.3
5	~	~	39	~	~	67	3.2	3.2	101	2.4	2.4	135	2.3	2.3	169	1.8	1.8	203	~	~	237	~	~
6	3.4	3.4	40	~	~	68	0	0	102	2.2	2.2	136	2.3	2.3	170	1.7	1.7	204	~	~	238	~	~
7	~	~	41	~	~	69	-----	-----	103	1.9	1.9	137	2.3	2.3	171	1.3	0.1	205	0	0	239	3.4	3.4
8	~	~	42	~	~	70	3.4	3.4	104	0.4	0.3	138	2.3	2.3	172	1.3	1.3	206	~	~	240	3.4	3.3
9	0	0	43	~	~	71	-----	-----	105	0	0	139	1.7	1.7	173	0	0	207	~	~	241	1.9	1.9
10	~	~	44	1.3	1.3	72	1.4	2.7	106	1.7	1.7	140	-----	-----	174	-----	-----	208	~	~	242	0	0
11	~	~	45	~	~	73	3.4	3.4	107	3.4	3.4	141	3.4	3.4	175	-----	-----	209	3.4	3.4	243	1.9	1.9
12	3.4	3.4	46	~	~	74	0	0	108	-----	-----	142	1.3	1.3	176	-----	-----	210	~	~	244	3.4	3.3
13	~	~	47	~	~	75	1.7	1.8	109	-----	-----	143	2.1	1.7	177	1.8	1.7	211	~	~	245	3.4	3.4
14	~	~	48	3.4	3.4	76	2.3	1.8	110	1.9	1.9	144	2.2	2.2	178	3.4	3.5	212	~	~	246	3.4	3.4
15	~	~	49	0	0	77	-----	-----	111	1.9	1.9	145	0	0	179	0	0	213	0	0	247	0	0
16	0	0	50	~	~	78	-----	-----	112	1.7	1.7	146	1.7	1.7	180	-----	-----	214	2.5	3.0	248	3.3	3.4
17	~	~	51	~	~	79	-----	-----	113	1.7	1.7	147	1.8	1.7	181	-----	-----	215	2.5	3.0	249	3.2	3
18	~	~	52	0.8	0.8	80	3.4	0.1	114	1.7	1.7	148	1.7	1.7	182	-----	-----	216	3.4	3.4	250	0	0
19	3.4	3.4	53	0	0	81	0.1	0.1	115	1.7	1.7	149	0.6	0.5	183	3.5	3.5	217	~	~	251	3.2	3.0
20	0	0	54	0	0	82	2.8	2.8	116	1.7	1.7	150	3.4	3.4	184	-----	-----	218	0	0	252	~	~
21	-----	-----	55	1.4	1.4	83	0.1	0.1	117	1.7	1.7	151	0.5	0.6	185	-----	-----	219	1.3	1.3	253	0	0
22	3.5	3.5	56	3.4	3.4	84	3.4	3.4	118	3.4	3.4	152	0.5	0.4	186	-----	-----	220	~	~	254	~	~
23	~	~	57	3.5	3.5	85	0.1	0.1	119	2.0	2.0	153	1.4	1.3	187	-----	-----	221	~	~	255	3.4	3.4
24	~	~	58	-----	-----	86	3.6	3.4	120	1.7	1.7	154	1.4	1.3	188	-----	-----	222	0	0	256	~	~
25	~	~	DVC860E			87	0	0	121	1.5	1.5	155	2.4	2.4	189	-----	-----	223	~	~			
26	1.3	1.3	59	3.4	3.4	88	3.5	0.1	122	0	0	156	3.4	3.4	190	3.4	3.5	224	~	~			
27	~	~	DVC840E,DVC845E,EWD2204			89	1.3	1.3	123	0.3	0.1	157	0	0	191	0	0	225	3.4	3.4			
28	3.4	3.4	59	0.6	3.4	90	-----	-----	124	1.2	0.1	158	0.9	0.9	192	~	~	226	~	~			
29	0	0	DVC860E			91	-----	-----	125	0.3	0.1	159	3.4	3.4	193	~	~	227	~	~			
30	~	~	60	3.4	3.4	92	-----	-----	126	0.1	0.1	160	0	0	194	~	~	228	~	~			
31	~	~	DVC840E,DVC845E,EWD2204			93	0	0	127	2.3	2.3	161	3.4	3.4	195	~	~	229	0	0			
32	~	~	60	0	0	94	-----	-----	128	1.7	1.7	162	0	0	196	3.4	3.4	230	~	~			
33	~	~	DVC860E			95	-----	-----	129	2.3	2.3	163	1.8	1.8	197	~	~	231	3.4	3.4			
34	3.4	3.4	61	3.5	3.5	96	-----	-----	130	2.3	2.3	164	0	0	198	~	~	232	1.3	1.6			

DVD Main 3/3 Schematic Diagram < DVD Section > (DVC860E)

DVD MAIN 3/3

Ref No.	Position
ICS	
IC103	N-3
IC503	O-4
IC601	P-1
CONNECTOR	
CN601	R-1

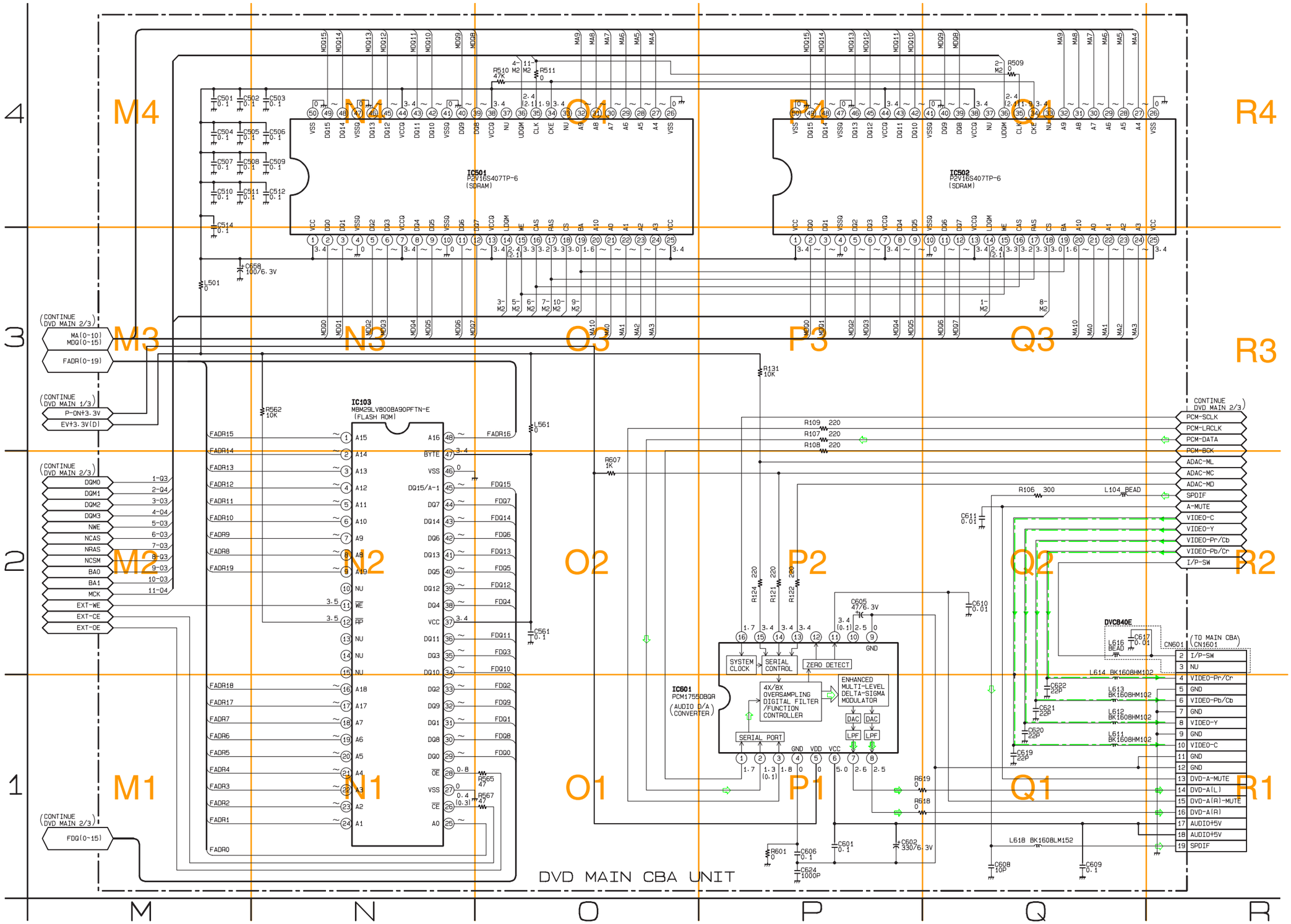


DVD Main 3/3 Schematic Diagram < DVD Section > (DVC840E, DVC845E, EWD2204)

VIDEO SIGNAL　DVD AUDIO SIGNAL　DATA(AUDIO) SIGNAL

DVD MAIN 3/3

Ref No.	Position
ICS	
IC103	N-3
IC501	O-4
IC502	Q-4
IC601	P-1
CONNECTOR	
CN601	R-1



WAVEFORMS

NOTE:

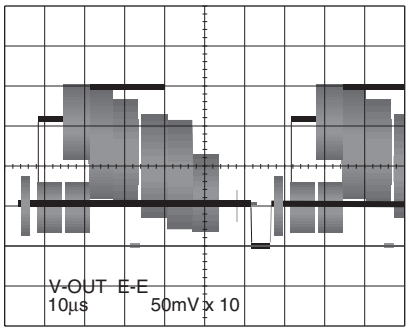
Input

VCR: COLOR BAR SIGNAL (WITH 1KHz AUDIO SIGNAL)
(WF1~WF3, WF10, WF11, WF14, WF15)

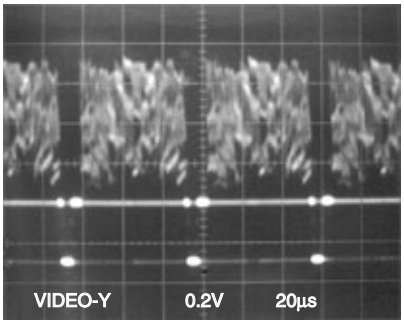
DVD: POWER ON (STOP) MODE
(WF4~WF6)

CD: 1kHz PLAY
(WF7~WF9)

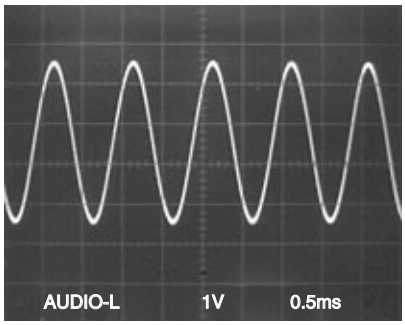
WF 1 TP751



WF4 Pin 8 of CN1601

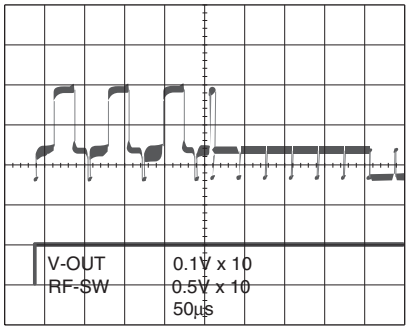


WF7 Pin 14 of CN1601

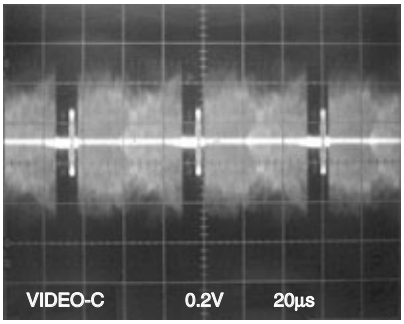


WF1 UPPER TP751

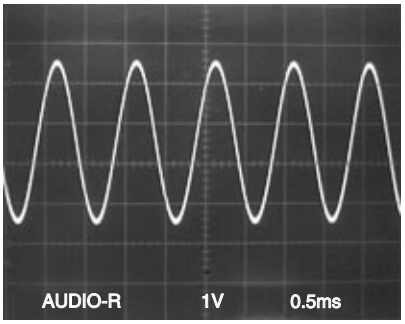
WF2 LOWER TP302



WF5 Pin 10 of CN1601

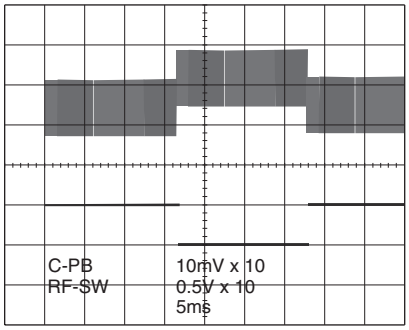


WF8 Pin 16 of CN1601

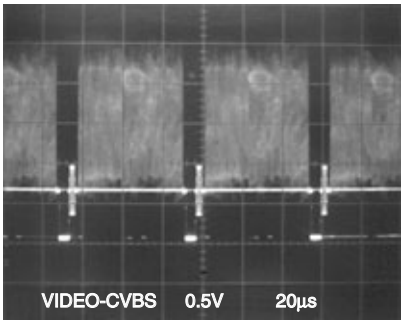


WF3 UPPER TP301

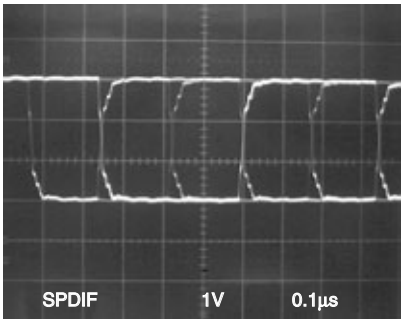
WF2 LOWER TP302



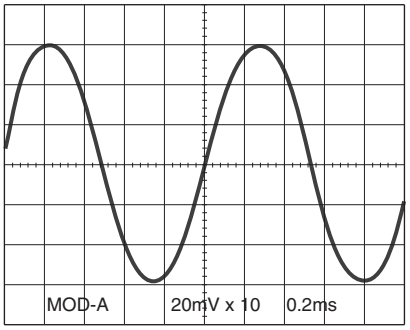
WF6 Pin 14 of IC1402



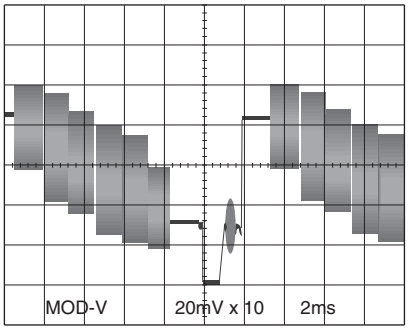
WF9 Pin 19 of CN1601



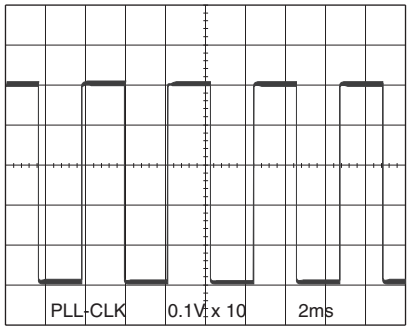
WF10 Pin 2 of TU701



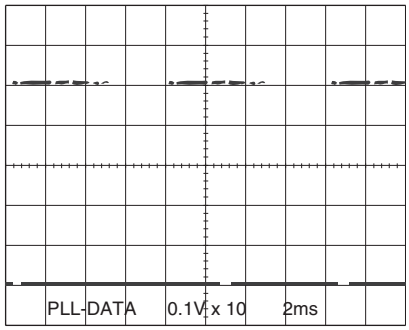
WF11 Pin 6 of TU701



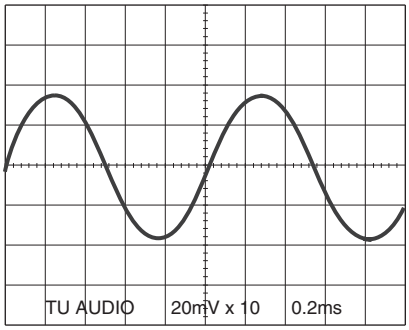
WF12 Pin 11 of TU701



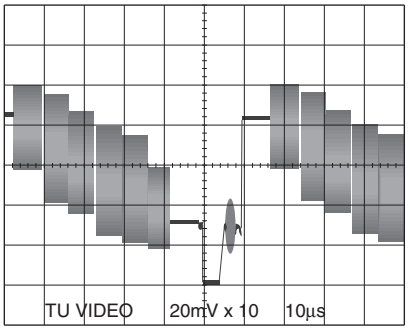
WF13 Pin 12 of TU701



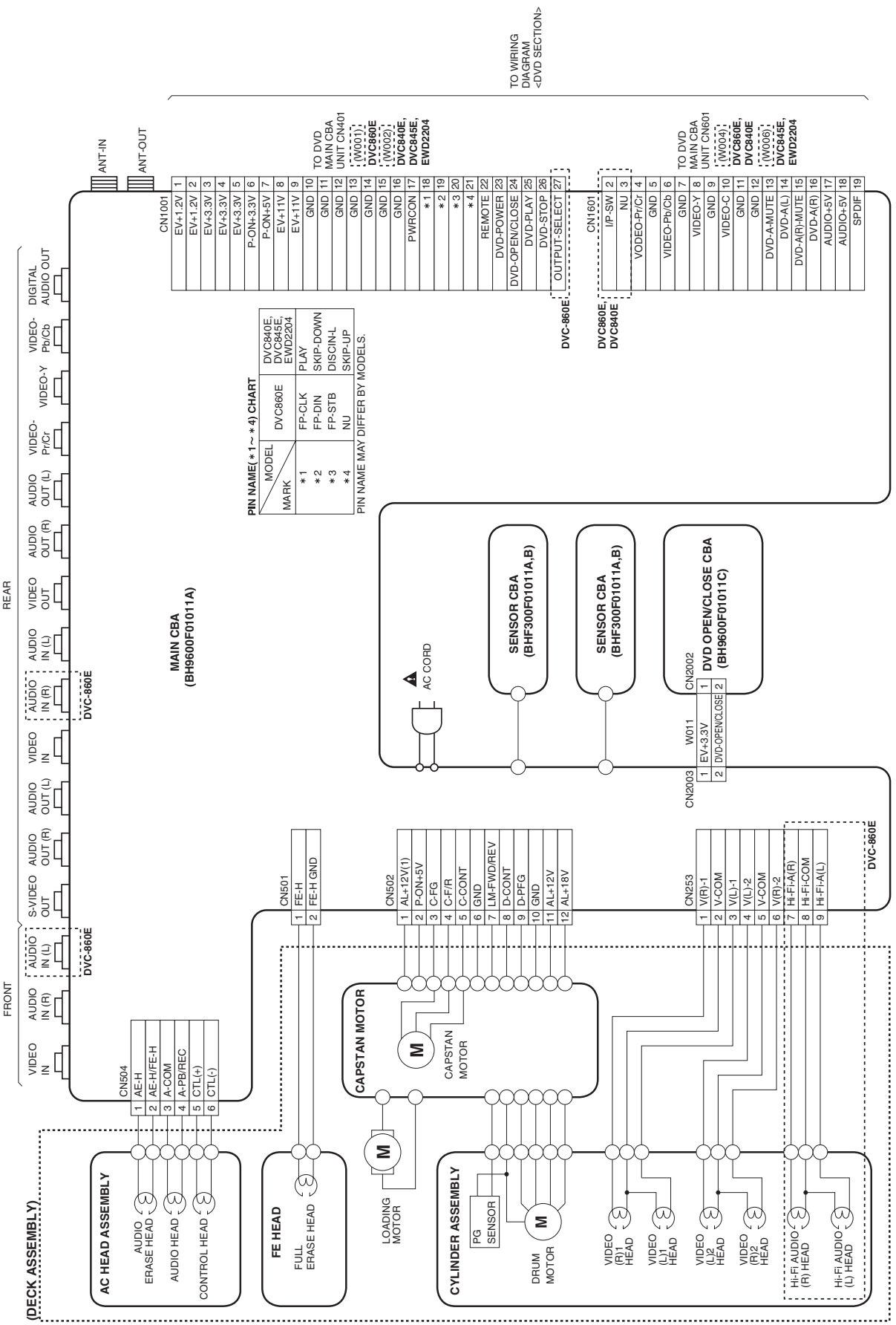
WF14 Pin 14 of TU701



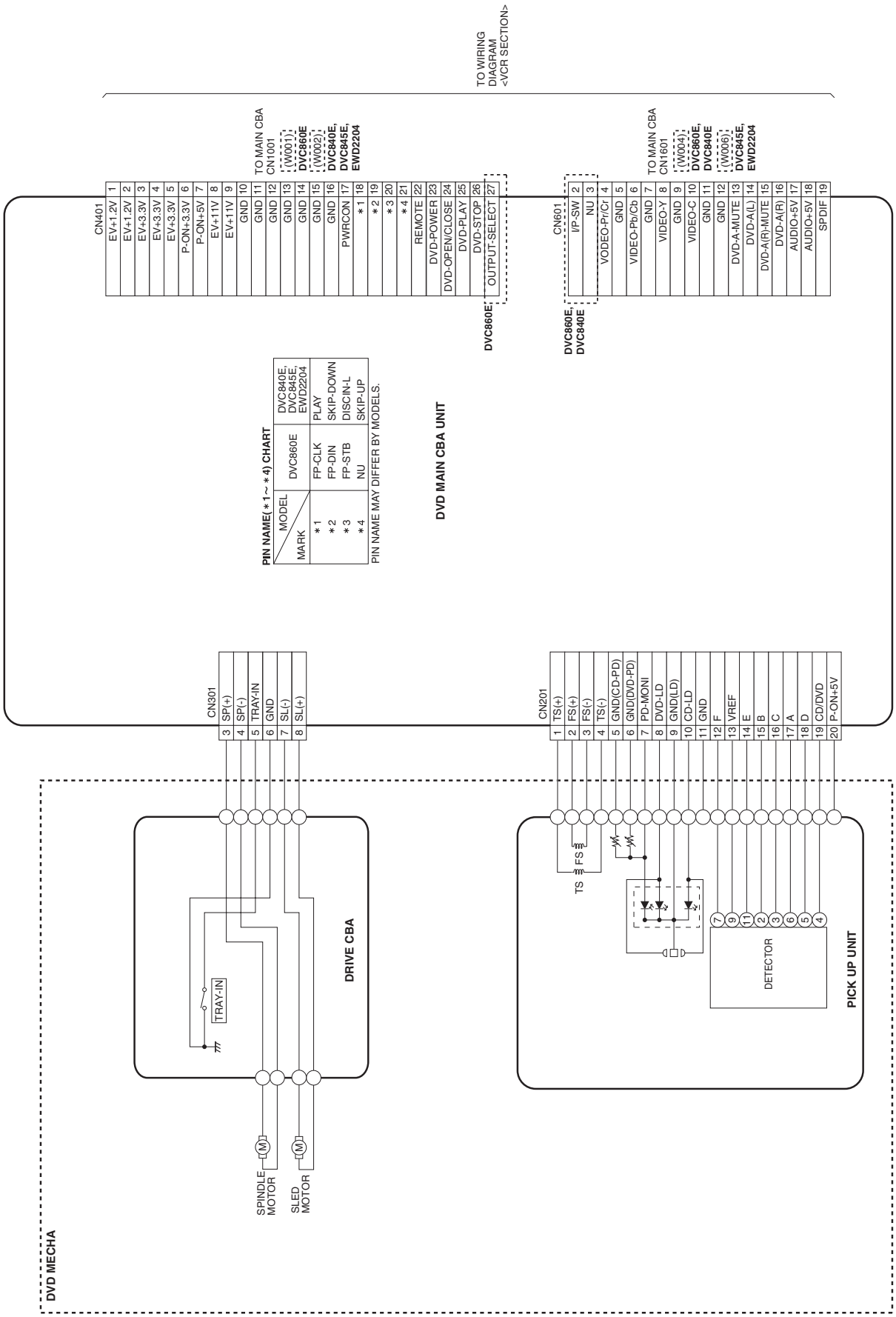
WF15 Pin 18 of TU701



WIRING DIAGRAM < VCR SECTION >



WIRING DIAGRAM < DVD SECTION >



SYSTEM CONTROL TIMING CHARTS

[VCR Section]

Mode SW : LD-SW

LD-SW Position detection A/D Input voltage Limit (Calculated voltage)	Symbol
3.76V~4.50V (4.12V)	EJ
4.51V~5.00V (5.00V)	CL
0.00V~0.25V (0.00V)	SB
1.06V~1.50V (1.21V)	TL
0.66V~1.05V (0.91V)	FB
1.99V~2.60V (2.17V)	SF
1.51V~1.98V (1.80V)	SM
3.20V~3.75V (3.40V)	AU
0.26V~0.65V (0.44V)	AL
4.51V~5.00V (5.00V)	SS
2.61V~3.19V (2.97V)	RS

Note:

Note:

EJ ⟶ RS: Loading FWD (LM-FWD/REV “H”)
RS ⟶ EJ: Loading REV (LM-FWD/REV “L”)
Stop (A) = Loading
Stop (B) = Unloading

Note:

Symbol	Loading Status
EJ	Eject
CL	Eject ~ REW Reel
SB	REW Reel ~ Stop(B)
TL	Stop(B) ~ Brake Cancel
FB	Brake Cancel ~ FF / REW
SF	FF / REW ~ Stop(M), (FF / REW)
SM	Stop(M), (FF / REW) ~ Stop(A)
AU	Stop(A) ~ Play / REC
AL	Play / REC ~ Still / Slow
SS	Still / Slow ~ RS (REW Search)
RS	RS (REW Search)

Still/Slow Control
Frame Advance Timing Chart

1) SP Mode

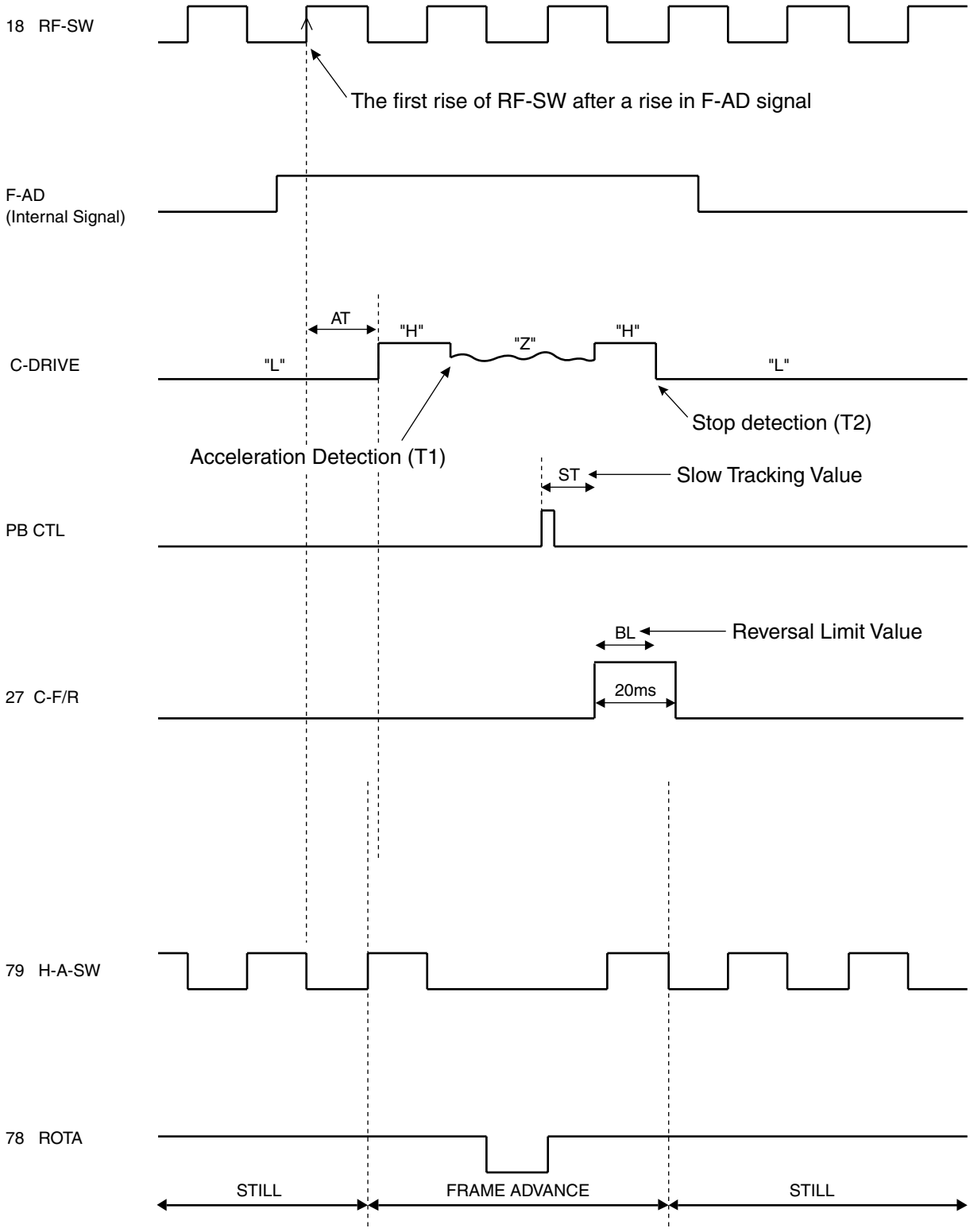


Fig. 1

2) LP/SLP Mode

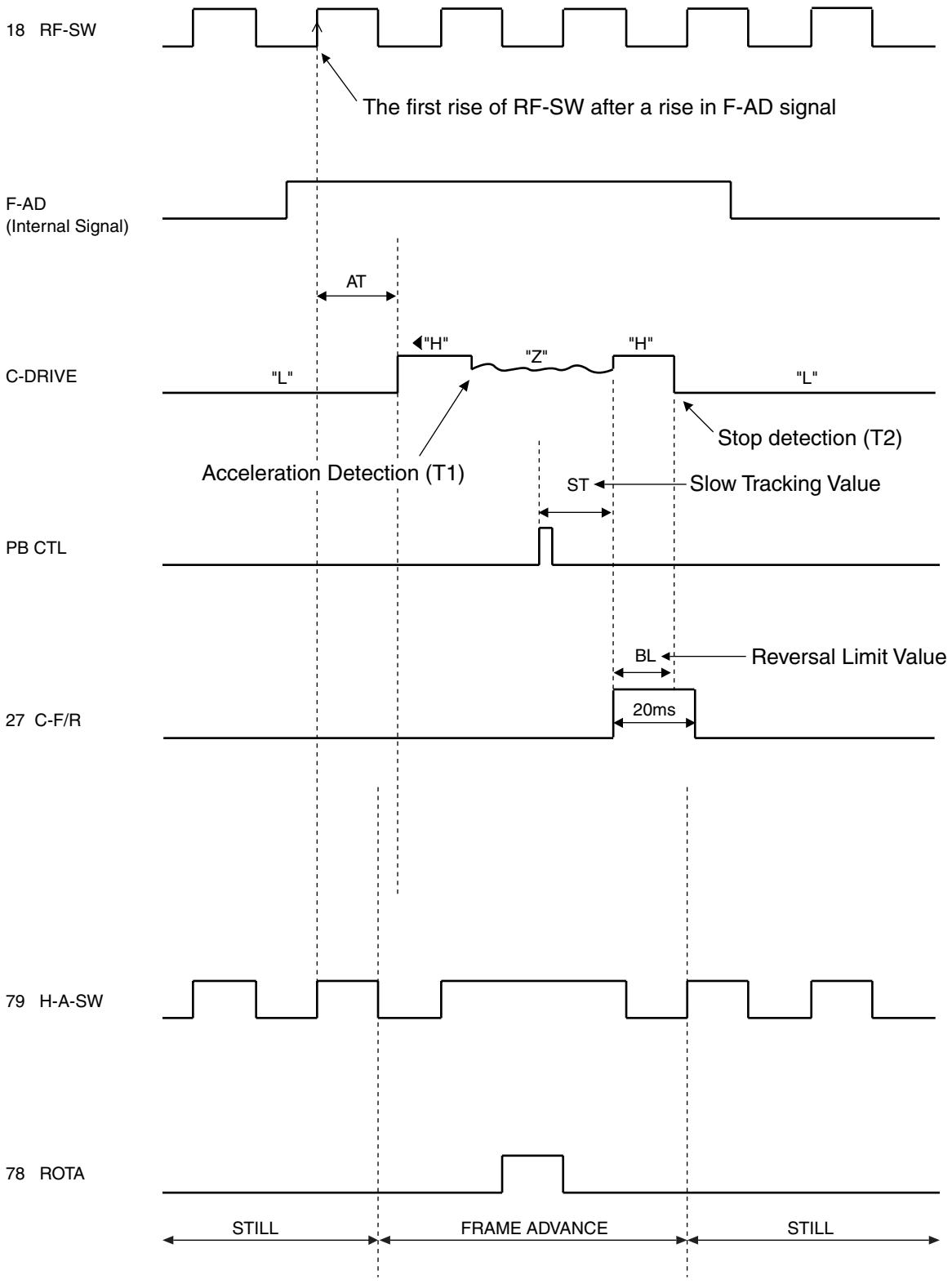


Fig. 2

1. EJECT (POWER OFF) -> CASSETTE IN (POWER ON) -> STOP(B) -> STOP(A) -> PLAY -> RS -> FS -> PLAY -> STILL -> PLAY -> STOP(A)

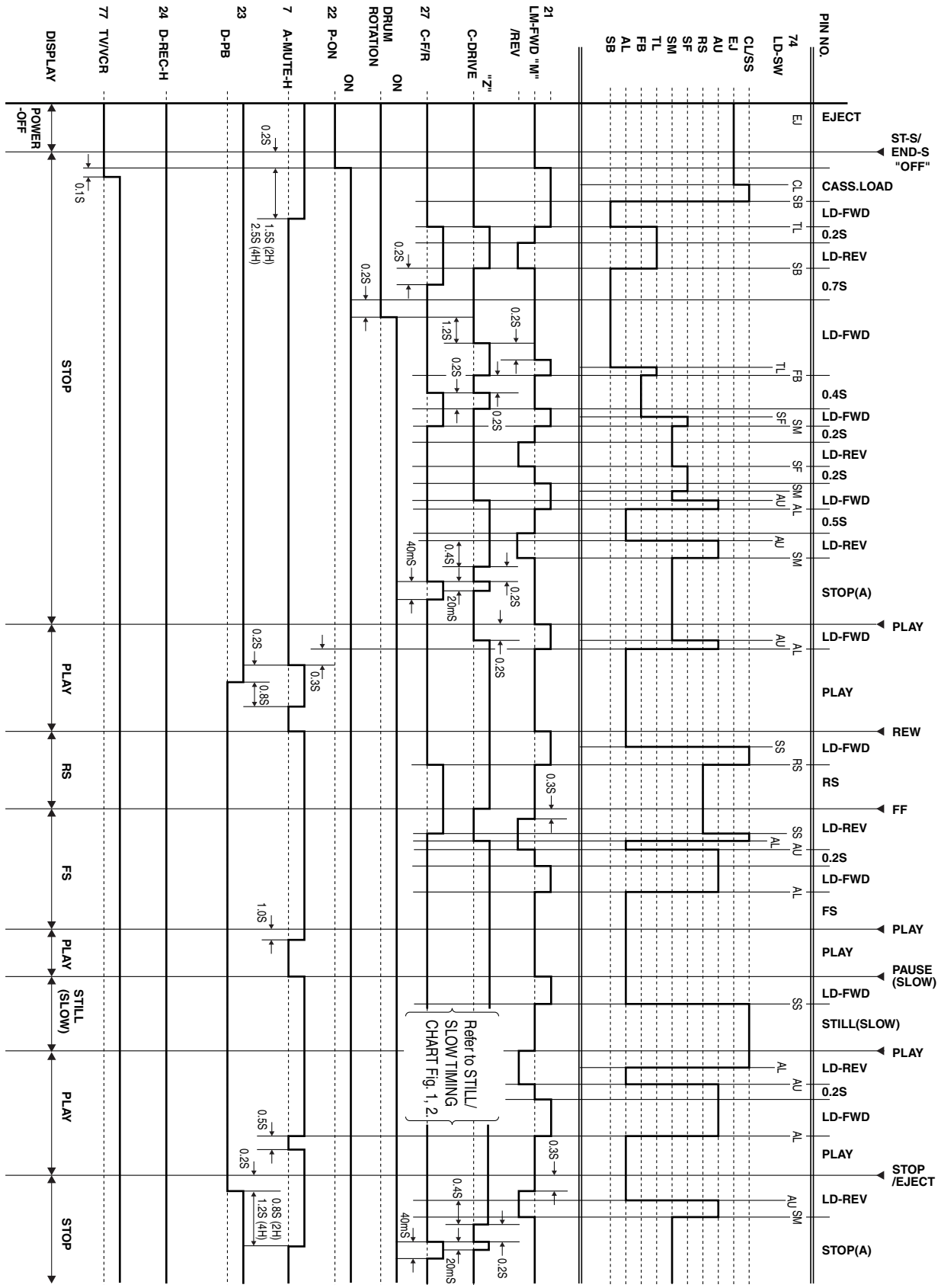


Fig. 3

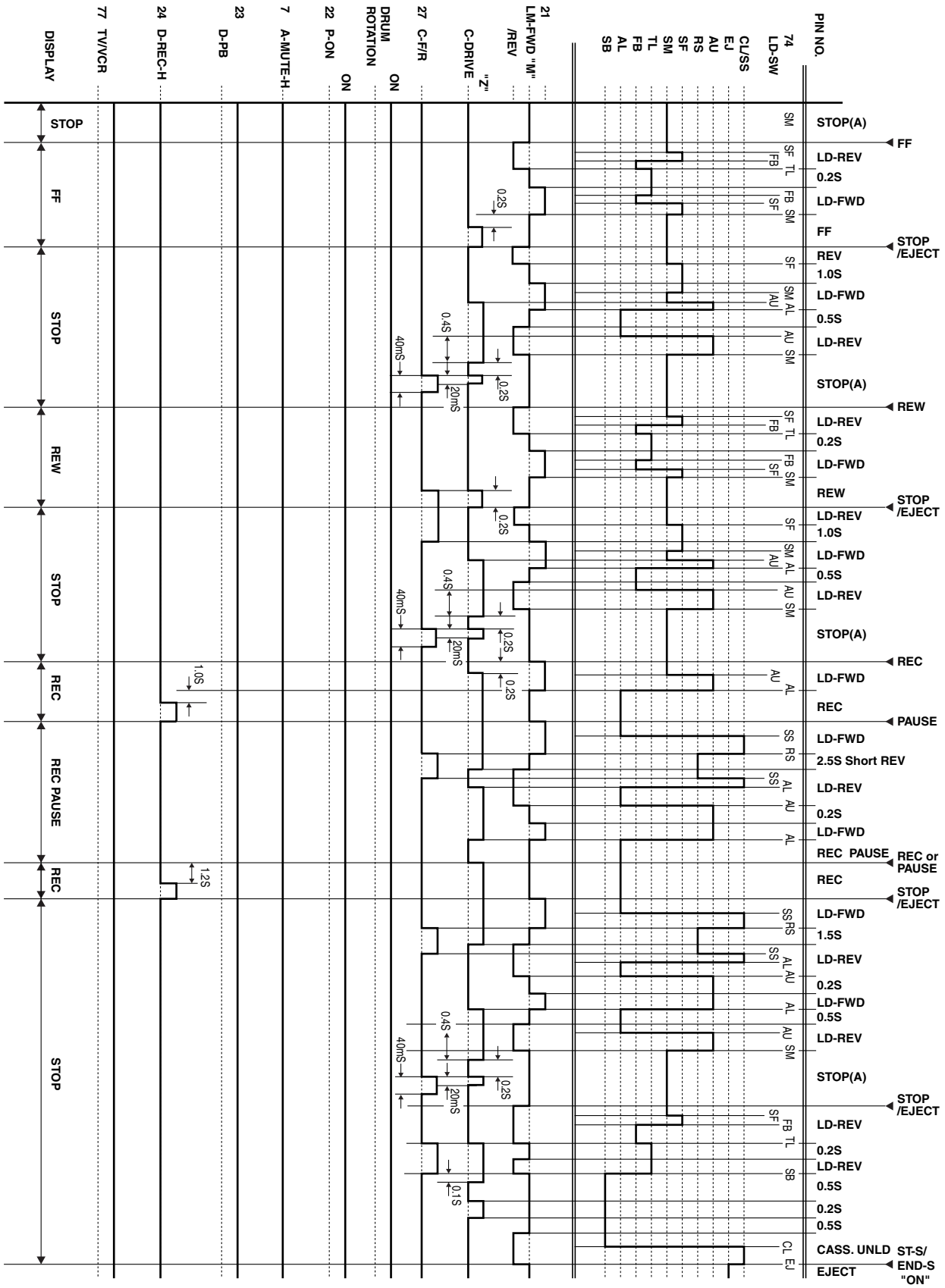
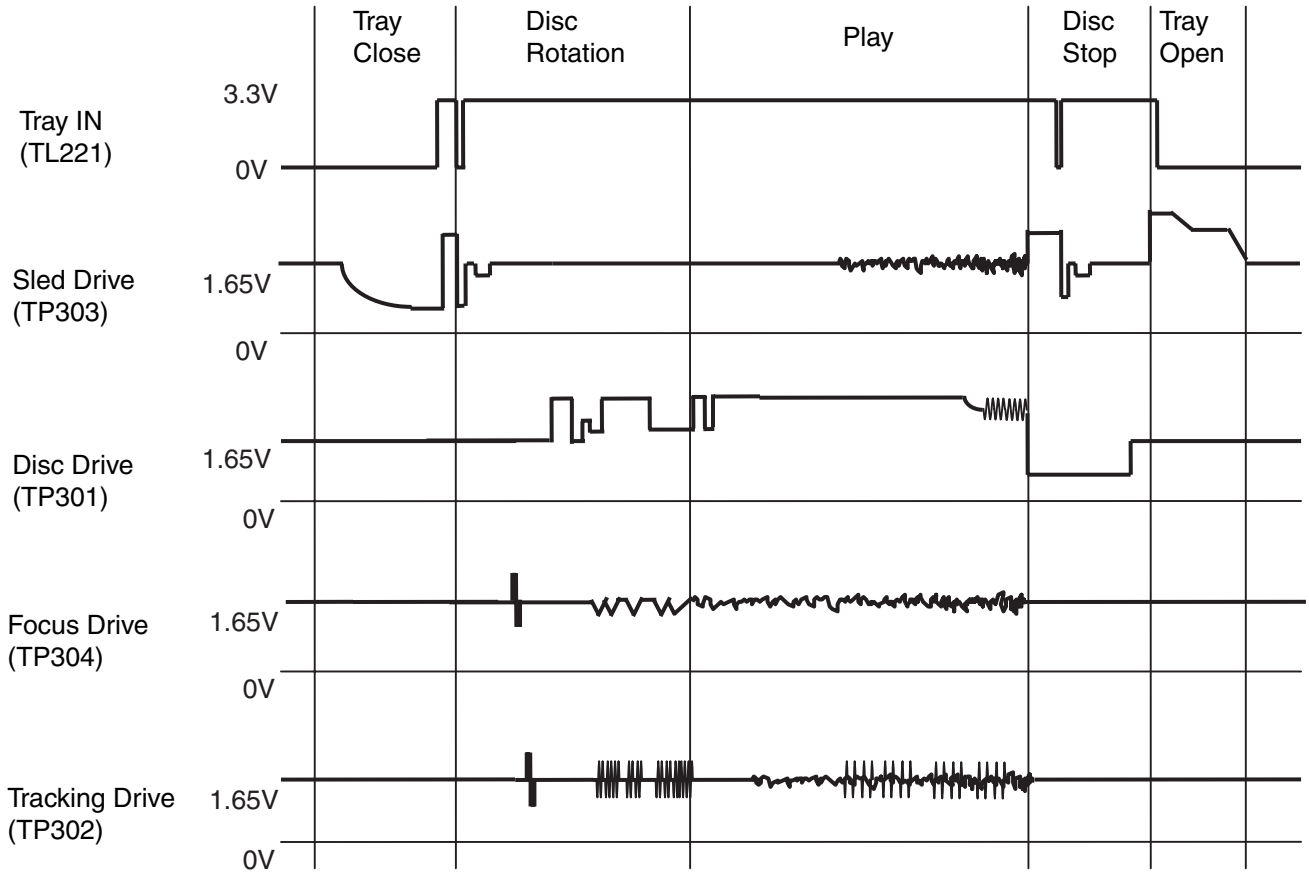

2. STOP(A) -> FF -> STOP(A) -> REW -> STOP(A) -> REC -> PAUSE -> PAUSE or REC -> STOP(A) -> EJECT
PIN NO.
74 LD-SW
CL/SS
EJ
AU
RS
SF
SM
TL
FB
AL
SB
21 LM-FWD "M" /REV
"Z" C-DRIVE
27 C-F/R
DRUM ROTATION
22 P-ON
7 A-MUTE-H
23 D-PB
24 D-REC-H
77 TV/VCR
DISPLAY
STOP(A)
FF
LD-REV
0.2S
LD-FWD
FF
STOP /EJECT
REV
1.0S
LD-FWD
0.5S
LD-REV
STOP(A)
REW
LD-REV
0.2S
LD-FWD
REW
STOP /EJECT
LD-REV
1.0S
LD-FWD
0.5S
LD-REV
STOP(A)
REC
LD-FWD
REC
PAUSE
LD-FWD
2.5S Short REV
LD-REV
0.2S
LD-FWD
REC PAUSE
REC or PAUSE
REC
STOP /EJECT
LD-FWD
1.5S
LD-REV
0.2S
LD-FWD
0.5S
LD-REV
STOP(A)
STOP /EJECT
LD-REV
0.2S
LD-REV
0.5S
0.2S
0.5S
CASS. UNLD
EJECT
ST-S/ END-S "ON"
0.2S
0.4S
40mS
20mS
0.1S
1.0S
1.2S
STOP
FF
STOP
REW
STOP
REC
REC PAUSE
REC
STOP

Fig. 4

[DVD Section]

Tray Close ~ Play / Play ~ Tray Open



IC PIN FUNCTION DESCRIPTIONS

[VCR Section]

Comparison Chart of Models and Marks

Model	Mark
DVC860E	A
DVC840E	B
DVC845E	C
EWD2204	D

IC501(SERVO / SYSTEM CONTROL IC)

"H" ≥ 4.5V, "L" ≤ 1.0V

Pin No.	Mark	IN/ OUT	Signal Name	Function	Active Level
1		IN	P-DOWN -L	Power Voltage Down Detector Signal	L
2		IN	REC-SAF-SW	Recording Safety SW Detect (With Record tab = "L"/ With out Record tab = "H")	H/L
3		IN	T-REEL	Take Up Reel Rotation Signal	PULSE
4		-	N.U.	Not Used	-
5		IN	REMOTE-VIDEO	Remote Control Sensor	L
6	A	OUT	DISPLAY-CLK	7seg. Driver IC Clock Control Output Signal	H/L
	B,C,D	-	N.U.	Not Used	-
7		OUT	A-MUTE-H	Audio Mute Control Signal (Mute = "H")	H
8	A	OUT	DISPLAY-DATA	7seg. Driver IC Data Control Output Signal	H/L
	B,C,D	-	N.U.	Not Used	-
9	A	OUT	DISPLAY-ENA	7seg. Driver IC Enable Control Output Signal	L
	B,C,D	-	N.U.	Not Used	-
10		-	N.U.	Not Used	-
11		-	N.U.	Not Used	-
12		IN/ OUT	IIC-BUS-SDA	IIC BUS Control Data	H/L
13		OUT	IIC-BUS-SCL	IIC BUS Control Clock	H/L
14		OUT	YCA-SCL	YCA IC Control Clock	H/L
15		OUT	YCA-SDA	YCA IC Control Data	H/L
16		OUT	YCA-CS	YCA IC Control Chip Select	H/L
17		-	N.U.	Not Used	-
18		OUT	RF-SW	Video Head Switching Pulse	H/L
19		OUT	D-V SYNC	Dummy V-sync Output	H/Hi-z
20		IN	RESET	System Reset Signal (Reset="L")	L
21		OUT	LM-FWD/ REV	Loading Motor FWD/ REV Output	H/Z/L
22		OUT	P-ON-L	Power On Signal to Low	L
23		-	N.U.	Not Used	-
24		OUT	D-REC-H	Delayed Record Signal	H
25	A	OUT	HiFi-H-SW	HiFi Audio Head Switching Pulse	H/L
	B,C,D	-	N.U.	Not Used	-
26		OUT	DVD-POWER	DVD Power Control Signal	H
27		OUT	C-F/R	Capstan Motor FWD/REV Control Signal (FWD="L"/ REV="H")	H/L
28		OUT	C-CONT	Capstan Motor Control Signal	PWM
29		OUT	D-CONT	Drum Motor Control Signal	PWM
30		-	N.U.	Not Used	-
31		-	VDD	VDD	-
32		OUT	OSCO	Main Clock Output 14.31818MHz	-

Pin No.	Mark	IN/ OUT	Signal Name	Function	Active Level
33		IN	OSCI	Main Clock Input 14.31818MHz	-
34		-	VSS	VSS	
35		IN	XI	Sub Clock Input 32.768 MHz	-
36		OUT	XO	Sub Clock Output 32.768 MHz	-
37		IN	SXI	Operation Mode Selecting Input Signal	-
38		OUT	VIDEO-OUT	Composite Video Signal Output	-
39		-	Vss2	Vss2	-
40		IN	VIDEO-IN	Composite Video Signal Input	-
41		IN	C-SYNC	Composite Synchronized Pulse	PULSE
42		-	VDD2	VDD2	-
43		IN	AFCC	Low Path Filter Input Signal For AFC	-
44		OUT	AFCLPF	Low Path Filter Output Signal For AFC	-
45		-	N.U.	Not Used	-
46		OUT	OUTPUT-SELECT	Output Select	H/L
47		IN	D-PFG	Drum PG/FG Input Signal	PULSE
48		-	N.U.	Not Used	-
49		IN	C-FG	Capstan Motor Rotation Detection Pulse	PULSE
50		-	AFG	GND	-
51		OUT	VRO	Servo Standard Voltage Output	-
52		IN	VRI	Servo Standard Voltage Input	-
53		-	AVss	AVSS	-
54		IN	CTLA	CTL Amp. AC GND	-

Pin No.	Mark	IN/ OUT	Signal Name	Function	Active Level
55		-	AVDD	AVDD	-
56		IN/ OUT	CTL (+)	Playback/ Record Control Signal (+)	-
57		IN/ OUT	CTL (-)	Playback/ Record Control Signal (-)	-
58		OUT	CTL	Amp. Output Control Signal for Test Point	-
59	A	IN	HiFi/ NOR-IN	Audio Mode Input HiFi="L"/ Normal="H"	A/D
	BC,D	-	N.U.	Not Used	-
60		IN	DVD-POW-MONITOR	DVD Power Monitor Signal (P-off="L", P-on="H")	H/L
61	A	IN	ST/SAP-IN	Tuner Stereo/ Sap Detector Signal Input	A/D
	B,C,D	-	N.U.	Not Used	-
62		IN	END-S	Tape End Position Detect Signal	A/D
63		IN	AFC	Automatic Frequency Control Signal	A/D
64		IN	V-ENV	Video Envelope Comparator Signal	A/D
65		IN	PG-DELAY	Video Head Switching Pulse Signal Adjusted Voltage	A/D
66		IN	KEY-2	A/D Key Data Signal 2	A/D
67		IN	KEY-1	A/D Key Data Signal 1	A/D
68		IN	LD-SW	Deck Mode Position Detector Signal	A/D
69		IN	ST-S	Tape Start Position Detector Signal	A/D
70		OUT	DVD-L-IND	VCR Mode LED Signal Output	H/L

Pin No.	Mark	IN/ OUT	Signal Name	Function	Active Level
71		OUT	DVD-H-IND	DVD Mode LED Signal Output	H/L
72	A	-	N.U.	Not Used	-
	B,C,D	OUT	REC-IND	REC Mode LED Signal Output	H/L
73		-	N.U.	Not Used	-
74		-	N.U.	Not Used	-
75	A	-	N.U.	Not Used	-
	B,C,D	OUT	TIMER-IND	TIMER LED Signal Output	H/L
76		OUT	CONV-SW	RF Conv. Output Channel Switching Signal 3ch="Hi-z", 4ch="L"	Hi-z/L
77		OUT	VCR/TV	RF Conv. ON/ OFF Signal (TV="L"/ VCR="H")	H/L
78		OUT	C-ROTA	Color Phase Rotary Changeover Signal	H/L
79		OUT	H-A-SW	Video Head Amp Switching Pulse	H/L
80		IN	H-A-COMP	Head Amp Comparator Signal	H/L

Notes:

Abbreviation for Active Level:

PWM -----Pulse Wide Modulation

A/D--------Analog - Digital Converter

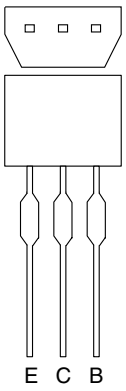
[DVD Section]

DVC860E

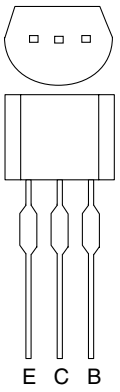
IC571 [PT6313-S-TP]

Pin No.	In/Out	Signal Name	Name Function
1	In	FP-CLK	Clock Input
2	In	FP-STB	Serial Interface Strobe
3	-	N.U.	Not Used
4	-	N.U.	Not Used
5	-	VSS	GND
6	-	VDD	Power Supply
7	Out	a	Segment Output
8	Out	b	
9	Out	c	
10	Out	d	
11	Out	e	
12	In	f	
13	In	g	
14	Out	h	
15	-	VEE	Pull Down Level
16	Out	i	Segment Output
17	Out	7G	Grid Output
18		6G	
19		5G	
20		4G	
21		3G	
22		2G	
23		1G	
24	-	VDD	Power Supply
25	-	VSS	GND
26	In	OSC	Oscillator Input
27	-	N.U.	Not Used
28	In	FP-DIN	Serial Data Input

LEAD IDENTIFICATIONS

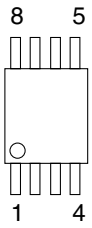


2SA1175(J,H,F)
2SC2785(J,H,F,K)
BA1F4M-T
BN1F4M-T
KRA103M
KRC103M
KTA1266(GR)
KTA1267(GR,Y)
KTC3193(Y)
KTC3199(Y,GR,BL)

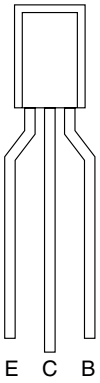


2SA1015-GR(TPE2)
2SC1815-BL(TPE2)
2SC1815-GR(TPE2)
2SC1815-Y(TPE2)
2SC2120-Y(TPE2)
KTC3198(Y,GR)
KTC3203(Y)

KIA4558P
NJM4558D



2SC536NF-NPA-AT
2SC536NG-NPA-AT



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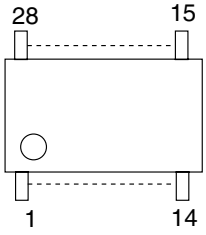
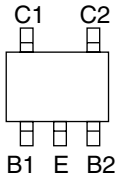
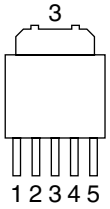


EL817A
EL817B
EL817C
LTV-817B-F
LTV-817C-F
PS2561A-1(Q,W)

FMG4A T148
RN1511(TE85R)

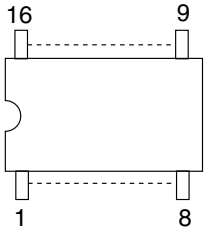


PQ070XZ5MZP

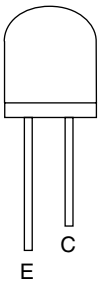


1: Vin
2: Vc
3: Vo
4: Vadj
5: GND

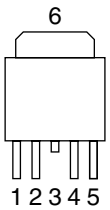
BU4053BCF
CD4053BCSJX
TC4053BF(N)



MID-32A22F
PT204-6B-12

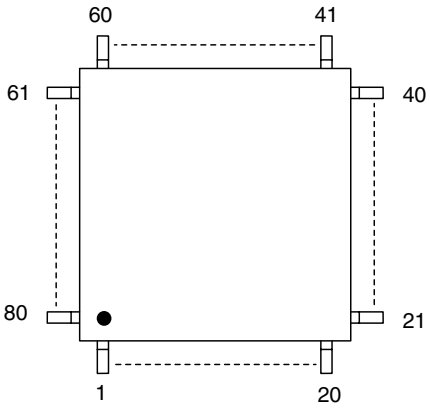


BA3948FP-E2



1: CTL
2: Vcc
3: N.C.
4: OUT
5: C
6: GND

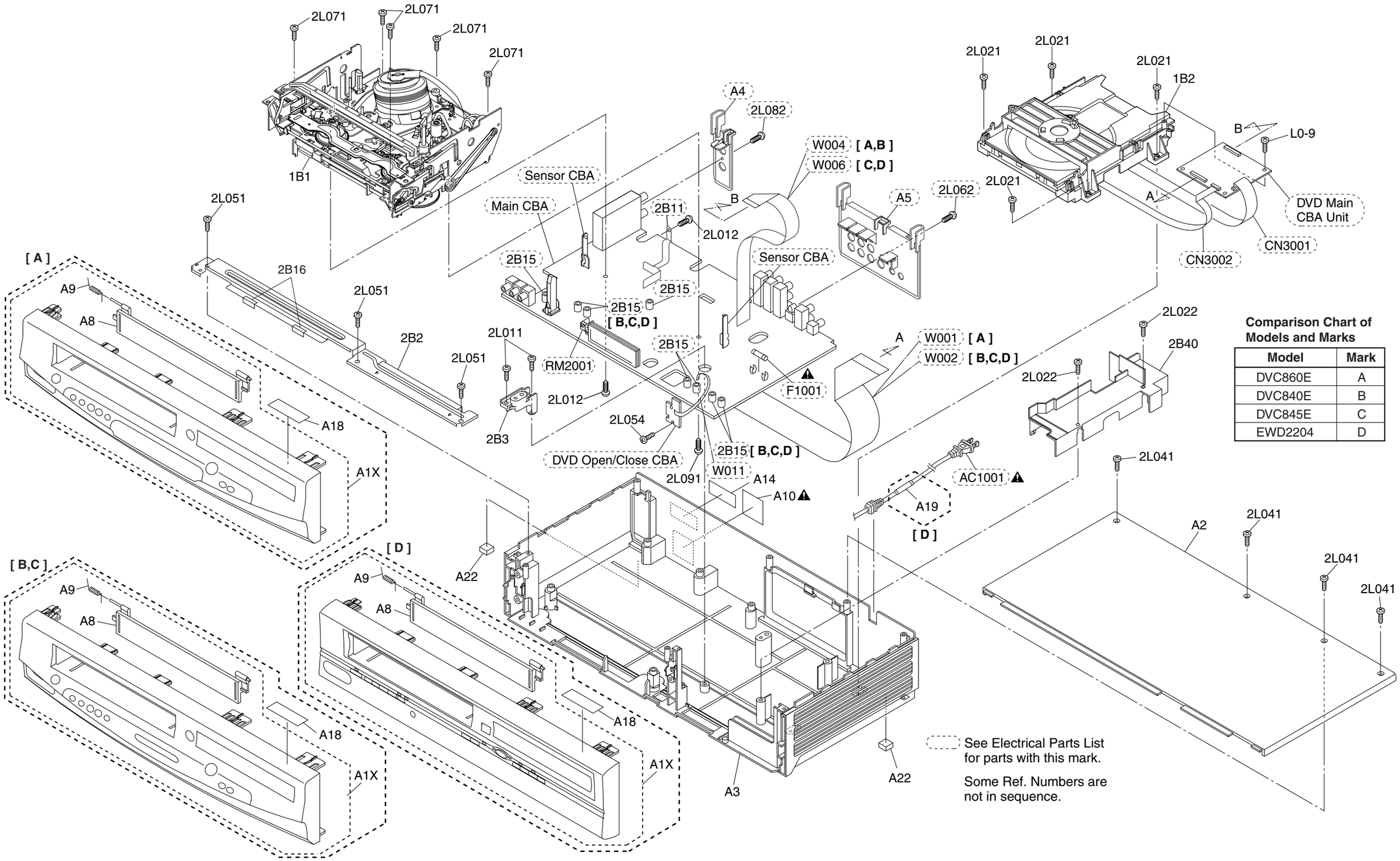
LA71205M-MPB-E
LA72670BM-MPB-E
QSZAA0RMS017



Note:
A: Anode
K: Cathode
E: Emitter
C: Collector
B: Base
R: Reference
S: Source
G: Gate
D: Drain

EXPLODED VIEWS

Cabinet



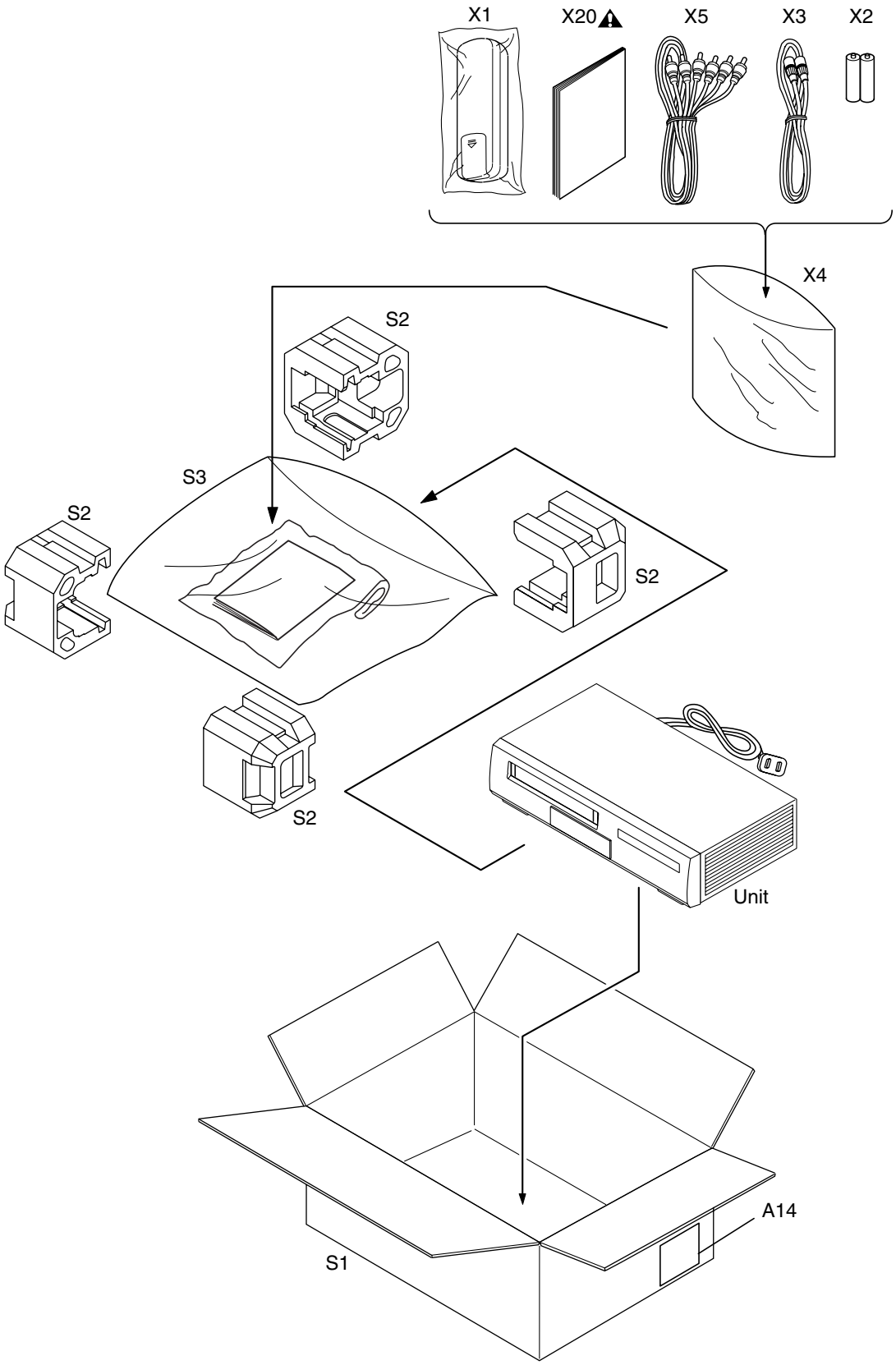
Comparison Chart of Models and Marks

Model	Mark
DVC860E	A
DVC840E	B
DVC845E	C
EWD2204	D

See Electrical Parts List for parts with this mark.

Some Ref. Numbers are not in sequence.

Packing



MECHANICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

Comparison Chart of Models and Marks

Model	Mark
DVC860E	A
DVC840E	B
DVC845E	C
EWD2204	D

Ref. No.	Mark	Description	Part No.
A1X	A	FRONT ASSEMBLY H9600UD	0VM204492
A1X	B	FRONT ASSEMBLY H9601UD	0VM204493
A1X	C	FRONT ASSEMBLY H9604UD	0VM204547
A1X	D	FRONT ASSEMBLY H9610UD	0VM204511
A2		TOP CASE H9600UD	0VM101340
A3		CHASSIS(D5) H9600UD	0VM000197
A8	A	DOOR, CASSETTE H9600UD	0VM306647
A8	B,C	DOOR, CASSETTE H9601UD	0VM416215
A8	D	DOOR, CASSETTE H9610UD	0VM306694
A9		SPRING, DOOR H7220UD U15	0VM408617
A10⚠	A	LABEL, RATING(U) H9600UD or	----------
⚠	A	LABEL, RATING(D) H9600UD	----------
A10⚠	B	LABEL, RATING(U) H9601UD or	----------
⚠	B	LABEL, RATING(D) H9601UD	----------
A10⚠	C	LABEL, RATING(U) H9604UD or	----------
⚠	C	LABEL, RATING(D) H9604UD	----------
A10⚠	D	LABEL, RATING(U) H9610UD or	----------
⚠	D	LABEL, RATING(D) H9610UD	----------
A14		LABEL, BAR CODE HB400UD	----------
A14	A	LABEL, BAR CODE H9600UD	----------
A14	B	LABEL, BAR CODE H9601UD	----------
A14	C	LABEL, BAR CODE H9604UD	----------
A14	D	LABEL, BAR CODE H9610UD	----------
A18	A,B,C	LABEL, TELEPHONE NUMBER H5730UD(SYLVANIA)	----------
A18	D	LABEL, TELEPHONE NUMBER H7931UD(EMERSON)	----------
A19	D	HOLDER, EAS(H9410UD) MAKER NO.EM150DR	0VM415877
A22		CHASSIS FOOT H79P9JD	0VM412315
1B1	A	DECK ASSEMBLY CZD013/VM2260	N2260FL
1B1	B,C,D	DECK ASSEMBLY CZD013/VM2240	N2240FL
1B2		DVD MECHA(FG LESS) 0838 VCZL0500	N79F0HVM
2B2		TOP BRACKET H9600UD	0VM204470
2B3		RODER HOLDER H9600UD	0VM306676
2B16		TAPE, HIMELON H9206JD	0VM413956
2B40		PARTITION PLATE H9600UD	0VM306677
2L011		P-TIGHT SCREW 3X8 BIND +	GBMP3080
2L012		SCREW, S-TIGHT M3X6 BIND HEAD+	GBMS3060
2L021		SCREW, P-TIGHT 3X12 BIND HEAD+	GBMP3120
2L022		P-TIGHT SCREW 3X8 BIND +	GBMP3080
2L041		SCREW, P-TIGHT 3X10 BIND HEAD+	GBEP3100
2L051		SCREW, P-TIGHT M3X6 BIND HEAD+	GBMP3060
2L054		SCREW, P-TIGHT M3X6 BIND HEAD+	GBMP3060
2L071		SCREW, P-TIGHT M3X10 WASHER HEAD+	GCMP3100
2L091		SCREW, P-TIGHT M3X8 BIND HEAD+	GBCP3080
		PACKING	
S1	A	GIFT BOX CARTCON H9600UD	0VM306773
S1	B	GIFT BOX CARTON H9601UD	0VM306774
S1	C	GIFT BOX CARTON H9604UD	0VM306777
S1	D	GIFT BOX CARTON H9610UD	0VM306868
S2		STYROFOAM H9600UD	0VM204474
S3		UNIT, BAG E5500UD	0VM411683
		ACCESSORIES	
X1	A	REMOTE CONTROL UNIT DVD 0364 VCZF05DD	NB101UD
X1	B,C,D	REMOTE CONTROL UNIT DVD 0364 VCZF05DD	NB100UD
X2		DRY BATTERY R6P/2S or	XB0M451T0001
		DRY BATTERY ES-GR6M-C	XB0M571GLP01
X3		RF CABLE 2.5C-2V	WPZ0901TM002
X4		ACCESSORY BAG E5700UD	0VM415576
X5		AV CORD TSCKA-Y/RW100 or	WPZ0102TM015
		AV CORD RCA(M*2)TO RCA(M*2)	WPZ0102LTE01
X20⚠	A	OWNER'S MANUAL H9600UD	0VMN04012
X20⚠	B	OWNER'S MANUAL H9601UD	0VMN04013
X20⚠	C	OWNER'S MANUAL H9604UD	0VMN04016
X20⚠	D	OWNER'S MANUAL H9610UD	0VMN04085

ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTES:

1. Parts that are not assigned part numbers (---------) are not available.
2. Tolerance of Capacitors and Resistors are noted with the following symbols.

C.....±0.25%	D.....±0.5%	F.....±1%
G.....±2%	J.....±5%	K.....±10%
M.....±20%	N.....±30%	Z.....+80/-20%

Comparison Chart of Models and Marks

Model	Mark
DVC860E	A
DVC840E	B
DVC845E	C
EWD2204	D

DVD MAIN CBA UNIT

Ref. No.	Mark	Description	Part No.
	A B C,D	DVD MAIN CBA UNIT DVD MAIN CBA UNIT DVD MAIN CBA UNIT	N79FPHUP N79FQHUP N79FNHUP

MCV CBA

Ref. No.	Mark	Description	Part No.
	A B C,D	MCV CBA MCV CBA MCV CBA Consists of the following	0VSA14910 0VSA15087 0VSA14939
		MAIN CBA (MCV-A) DVD OPEN/CLOSE CBA (MCV-C) SENSOR CBA	--------- --------- 0VSA14947

MAIN CBA

Ref. No.	Mark	Description	Part No.
		MAIN CBA (MCV-A) Consists of the following:	---------
		CAPACITORS	
C013		ELECTROLYTIC CAP. 10μF/50V M H7	CE1JMASSL100
C017		CERAMIC CAP. YV Z 0.01μF/50V	CCD1JZSYV103
C018		ELECTROLYTIC CAP. 470μF/16V M or	CE1CMASDL471
		ELECTROLYTIC CAP. 470μF/16V M	CE1CMASTL471
C020		ELECTROLYTIC CAP. 1000μF/10V M or	CE1AMZPDL102
		ELECTROLYTIC CAP. 1000μF/10V M	CE1AMZPTL102
C021		ELECTROLYTIC CAP. 470μF/6.3V M or	CE0KMASDL471
		ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASTL471
C023		ELECTROLYTIC CAP. 100μF/16V M or	CE1CMASDL101
		ELECTROLYTIC CAP. 100μF/16V M	CE1CMASTL101
C030		CERAMIC CAP.(AX) B K 0.033μF/50V	CA1J333TU011
C051		ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C053		ELECTROLYTIC CAP. 220μF/6.3V M or	CE0KMASDL221
		ELECTROLYTIC CAP. 220μF/6.3V M	CE0KMASTL221
C060		CHIP CERAMIC CAP. B K 0.1μF/25V or	CHD1EKB0B104
		CHIP CERAMIC CAP. B K 0.1μF/16V or	CHD1CKB0B104
		CHIP CERAMIC CAP.(1608) B K 0.1μF/25V or	CHD1EK30B104
		CHIP CERAMIC CAP.(1608) B K 0.1μF/16V	CHD1CK30B104
C301		ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C302		CHIP CERAMIC CAP. CH J 390pF/50V or	CHD1JJBCH391
		CHIP CERAMIC CAP. CH J 390pF/50V or	CHD1JJ3CH391
		CHIP CERAMIC CAP. CG J 390pF/50V	CHD1JJ3CG391
C303		PCB JUMPER D0.6-P5.0	JW5.0T
C304		CHIP CERAMIC CAP.(MELF) SL J 100pF/50V or	CZM1JJBSL101
		CHIP CERAMIC CAP.(MELF) SL J 100pF/50V or	CZM1JJ3SL101
		CHIP CERAMIC CAP. CH J 100pF/50V or	CHD1JJBCH101
		CHIP CERAMIC CAP.(1608) CH J 100pF/50V or	CHD1JJ3CH101
		CHIP CERAMIC CAP. CG J 100pF/50V	CHD1JJ3CG101
C305		CHIP CERAMIC CAP.(MELF) SL J 100pF/50V or	CZM1JJBSL101
		CHIP CERAMIC CAP.(MELF) SL J 100pF/50V or	CZM1JJ3SL101
		CHIP CERAMIC CAP. CH J 100pF/50V or	CHD1JJBCH101
		CHIP CERAMIC CAP.(1608) CH J 100pF/50V or	CHD1JJ3CH101
		CHIP CERAMIC CAP. CG J 100pF/50V	CHD1JJ3CG101
C307		CHIP CERAMIC CAP. F Z 1μF/10V or	CHD1AZB0F105
		CHIP CERAMIC CAP. F Z 1μF/10V	CHD1AZ30F105
C308		ELECTROLYTIC CAP. 47μF/6.3V M H7	CE0KMAVSL470
C309		CHIP CERAMIC CAP. F Z 0.1μF/50V or	CHD1JZB0F104
		CHIP CERAMIC CAP. F Z 0.1μF/25V or	CHD1EZB0F104
		CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
		CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
		CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C310		ELECTROLYTIC CAP. 22μF/6.3V M H7	CE0KMAVSL220
C311		ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMASSL010
C312		CHIP CERAMIC CAP. F Z 1μF/10V or	CHD1AZB0F105
		CHIP CERAMIC CAP. F Z 1μF/10V	CHD1AZ30F105
C313		ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMASSL010
C314		CHIP CERAMIC CAP. F Z 1μF/10V or	CHD1AZB0F105
		CHIP CERAMIC CAP. F Z 1μF/10V	CHD1AZ30F105
C315		CHIP CERAMIC CAP. B K 0.1μF/25V or	CHD1EKB0B104
		CHIP CERAMIC CAP. B K 0.1μF/16V or	CHD1CKB0B104
		CHIP CERAMIC CAP.(1608) B K 0.1μF/25V or	CHD1EK30B104
		CHIP CERAMIC CAP.(1608) B K 0.1μF/16V	CHD1CK30B104
C316		CHIP CERAMIC CAP. F Z 1μF/10V or	CHD1AZB0F105
		CHIP CERAMIC CAP. F Z 1μF/10V	CHD1AZ30F105
C317		CHIP CERAMIC CAP. F Z 1μF/10V or	CHD1AZB0F105
		CHIP CERAMIC CAP. F Z 1μF/10V	CHD1AZ30F105
C318		ELECTROLYTIC CAP. 22μF/6.3V M H7	CE0KMAVSL220
C319		CHIP CERAMIC CAP.(MELF) F Z 0.01μF/16V or	CZM1CZB0F103
		CHIP CERAMIC CAP.(MELF) F Z 0.01μF/16V	CZM1CZ30F103

Ref. No.	Mark	Description	Part No.
C320		CHIP CERAMIC CAP.(MELF) F Z 0.01µF/ 16V or	CZM1CZB0F103
		CHIP CERAMIC CAP.(MELF) F Z 0.01µF/ 16V	CZM1CZ30F103
C321	A	CHIP CERAMIC CAP.(MELF) F Z 0.01µF/ 16V or	CZM1CZB0F103
	A	CHIP CERAMIC CAP.(MELF) F Z 0.01µF/ 16V	CZM1CZ30F103
C322	A	CHIP CERAMIC CAP. CH J 68pF/50V or	CHD1JJBCH680
	A	CHIP CERAMIC CAP. CH J 68pF/50V or	CHD1JJ3CH680
	A	CHIP CERAMIC CAP. CG J 68pF/50V	CHD1JJ3CG680
C324		CHIP CERAMIC CAP. B K 0.01µF/50V or	CHD1JKB0B103
		CHIP CERAMIC CAP.(1608) B K 0.01µF/ 50V	CHD1JK30B103
C326		CHIP CERAMIC CAP. B K 0.01µF/50V or	CHD1JKB0B103
		CHIP CERAMIC CAP.(1608) B K 0.01µF/ 50V	CHD1JK30B103
C327		ELECTROLYTIC CAP. 47µF/6.3V M H7	CE0KMAVSL470
C328		ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMAVSL1R0
C329		CHIP CERAMIC CAP. B K 0.01µF/50V or	CHD1JKB0B103
		CHIP CERAMIC CAP.(1608) B K 0.01µF/ 50V	CHD1JK30B103
C330		ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMAVSL1R0
C331		CHIP CERAMIC CAP. B K 0.01µF/50V or	CHD1JKB0B103
		CHIP CERAMIC CAP.(1608) B K 0.01µF/ 50V	CHD1JK30B103
C332		ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMAVSL1R0
C333		CHIP CERAMIC CAP. F Z 0.1µF/50V or	CHD1JZB0F104
		CHIP CERAMIC CAP. F Z 0.1µF/25V or	CHD1EZB0F104
		CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
		CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
		CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C336		CHIP CERAMIC CAP.(MELF) F Z 0.01µF/ 16V or	CZM1CZB0F103
		CHIP CERAMIC CAP.(MELF) F Z 0.01µF/ 16V	CZM1CZ30F103
C339		CHIP CERAMIC CAP. B K 0.047µF/50V or	CHD1JKB0B473
		CHIP CERAMIC CAP. B K 0.047µF/25V or	CHD1EKB0B473
		CHIP CERAMIC CAP.(1608) B K 0.047µF/ 50V or	CHD1JK30B473
		CHIP CERAMIC CAP.(1608) B K 0.047µF/ 25V	CHD1EK30B473
C340		CHIP CERAMIC CAP. B K 0.1µF/25V or	CHD1EKB0B104
		CHIP CERAMIC CAP. B K 0.1µF/16V or	CHD1CKB0B104
		CHIP CERAMIC CAP.(1608) B K 0.1µF/25V or	CHD1EK30B104
		CHIP CERAMIC CAP.(1608) B K 0.1µF/16V	CHD1CK30B104
C341		CHIP CERAMIC CAP. B K 0.047µF/50V or	CHD1JKB0B473
		CHIP CERAMIC CAP. B K 0.047µF/25V or	CHD1EKB0B473
		CHIP CERAMIC CAP.(1608) B K 0.047µF/ 50V or	CHD1JK30B473
		CHIP CERAMIC CAP.(1608) B K 0.047µF/ 25V	CHD1EK30B473
C342		CHIP CERAMIC CAP. F Z 0.1µF/50V or	CHD1JZB0F104
		CHIP CERAMIC CAP. F Z 0.1µF/25V or	CHD1EZB0F104
		CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
		CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
		CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C343		ELECTROLYTIC CAP. 47µF/6.3V M H7	CE0KMAVSL470
C346		CHIP CERAMIC CAP. B K 0.01µF/50V or	CHD1JKB0B103
		CHIP CERAMIC CAP.(1608) B K 0.01µF/ 50V	CHD1JK30B103
C391		ELECTROLYTIC CAP. 100µF/10V M H7	CE1AMAVSL101
C392		ELECTROLYTIC CAP. 470µF/6.3V M or	CE0KMASDL471
		ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASTL471
C401		CHIP CERAMIC CAP. F Z 0.1µF/50V or	CHD1JZB0F104
		CHIP CERAMIC CAP. F Z 0.1µF/25V or	CHD1EZB0F104
		CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
		CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
		CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C402	B,C,D	CHIP CERAMIC CAP. F Z 0.1µF/50V or	CHD1JZB0F104
	B,C,D	CHIP CERAMIC CAP. F Z 0.1µF/25V or	CHD1EZB0F104
	B,C,D	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
	B,C,D	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
	B,C,D	CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C403	B,C,D	CHIP CERAMIC CAP. F Z 0.1µF/50V or	CHD1JZB0F104
	B,C,D	CHIP CERAMIC CAP. F Z 0.1µF/25V or	CHD1EZB0F104
	B,C,D	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
	B,C,D	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
	B,C,D	CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C404		CHIP CERAMIC CAP.(MELF) F Z 0.01µF/ 16V or	CZM1CZB0F103
		CHIP CERAMIC CAP.(MELF) F Z 0.01µF/ 16V	CZM1CZ30F103
C405		ELECTROLYTIC CAP. 22µF/6.3V M H7	CE0KMAVSL220
C406		ELECTROLYTIC CAP. 33µF/6.3V M H7	CE0KMAVSL330
C407		CHIP CERAMIC CAP. B K 0.01µF/50V or	CHD1JKB0B103
		CHIP CERAMIC CAP.(1608) B K 0.01µF/ 50V	CHD1JK30B103
C408		CHIP CERAMIC CAP. B K 0.012µF/50V or	CHD1JKB0B123
		CHIP CERAMIC CAP. B K 0.012µF/50V	CHD1JK30B123
C409		ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C410		CHIP CERAMIC CAP. B K 2700pF/50V or	CHD1JKB0B272
		CHIP CERAMIC CAP. B K 2700pF/50V	CHD1JK30B272
C411		CHIP CERAMIC CAP.(MELF) Y K 1000pF/ 35V or	CZM1GKB0Y102
		CHIP CERAMIC CAP.(MELF) Y K 1000pF/ 35V	CZM1GK30Y102
C412		ELECTROLYTIC CAP. 4.7µF/25V M H7	CE1EMAVSL4R7
C413		CHIP CERAMIC CAP. B K 6800pF/50V or	CHD1JKB0B682
		CHIP CERAMIC CAP. B K 6800pF/50V	CHD1JK30B682
C414		CHIP CERAMIC CAP.(MELF) Y K 1000pF/ 35V or	CZM1GKB0Y102
		CHIP CERAMIC CAP.(MELF) Y K 1000pF/ 35V	CZM1GK30Y102
C422		ELECTROLYTIC CAP. 47µF/6.3V M H7	CE0KMAVSL470
C423		ELECTROLYTIC CAP. 220µF/6.3V M H7	CE0KMAVSL221
C424		CERAMIC CAP. B K 470pF/100V or	CCD2AKP0B471
		CERAMIC CAP. B K 470pF/500V	CCD2JKS0B471
C425		FILM CAP.(P) 0.018µF/100V J or	CA2A183MS029
		FILM CAP.(P) 0.018µF/50V J	CA1J183MS029
C440	A	ELECTROLYTIC CAP. 0.1µF/50V M H7	CE1JMAVSLR10
C441	A	ELECTROLYTIC CAP. 0.1µF/50V M H7	CE1JMAVSLR10
C448	A	ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMAVSL4R7
C449	A	ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMAVSL4R7
C451	A	ELECTROLYTIC CAP. 47µF/16V M H7	CE1CMAVSL470
C452	A	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMAVSL1R0
C453	A	ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C454	A	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMAVSL1R0
C455	A	ELECTROLYTIC CAP. 22µF/6.3V M H7	CE0KMAVSL220
C456	A	ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C457	A	ELECTROLYTIC CAP. 4.7µF/25V M H7	CE1EMAVSL4R7
C458	A	CHIP CERAMIC CAP. B K 0.01µF/50V or	CHD1JKB0B103

Ref. No.	Mark	Description	Part No.
	A	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C459	A	ELECTROLYTIC CAP. 22μF/6.3V M H7	CE0KMAVSL220
C460	A	CHIP CERAMIC CAP.(MELF) Y K 4700pF/ 16V or	CZM1CKB0Y472
	A	CHIP CERAMIC CAP.(MELF) Y K 4700pF/ 16V	CZM1CK30Y472
C461	A	CHIP CERAMIC CAP.(MELF) F Z 0.01μF/ 16V or	CZM1CZB0F103
	A	CHIP CERAMIC CAP.(MELF) F Z 0.01μF/ 16V	CZM1CZ30F103
C462	A	CHIP CERAMIC CAP. B K 0.01μF/50V or	CHD1JKB0B103
	A	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C463	A	CHIP CERAMIC CAP. B K 0.1μF/25V or	CHD1EKB0B104
	A	CHIP CERAMIC CAP. B K 0.1μF/16V or	CHD1CKB0B104
	A	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V or	CHD1EK30B104
	A	CHIP CERAMIC CAP.(1608) B K 0.1μF/16V	CHD1CK30B104
C465	A	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C466	A	ELECTROLYTIC CAP. 220μF/6.3V M H7	CE0KMAVSL221
C467	A	CHIP CERAMIC CAP. B K 0.022μF/50V or	CHD1JKB0B223
	A	CHIP CERAMIC CAP. B K 0.022μF/25V or	CHD1EKB0B223
	A	CHIP CERAMIC CAP.(1608) B K 0.022μF/ 50V or	CHD1JK30B223
	A	CHIP CERAMIC CAP.(1608) B K 0.022μF/ 25V	CHD1EK30B223
C469	A	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C470	A	CERAMIC CAP.(AX) F Z 0.1μF/50V	CCA1JZTFZ104
C471	A	ELECTROLYTIC CAP. 22μF/6.3V M H7	CE0KMAVSL220
C472	A	CHIP CERAMIC CAP.(MELF) Y K 4700pF/ 16V or	CZM1CKB0Y472
	A	CHIP CERAMIC CAP.(MELF) Y K 4700pF/ 16V	CZM1CK30Y472
C473	A	CHIP CERAMIC CAP. B K 0.01μF/50V or	CHD1JKB0B103
	A	CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C474	A	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C475	A	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C476	A	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C477	A	ELECTROLYTIC CAP. 2.2μF/50V M H7	CE1JMAVSL2R2
C478	A	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C479	A	CHIP CERAMIC CAP. B K 0.022μF/50V or	CHD1JKB0B223
	A	CHIP CERAMIC CAP. B K 0.022μF/25V or	CHD1EKB0B223
	A	CHIP CERAMIC CAP.(1608) B K 0.022μF/ 50V or	CHD1JK30B223
	A	CHIP CERAMIC CAP.(1608) B K 0.022μF/ 25V	CHD1EK30B223
C480	A	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C481	A	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C483	A	CHIP CERAMIC CAP. F Z 0.1μF/50V or	CHD1JZB0F104
	A	CHIP CERAMIC CAP. F Z 0.1μF/25V or	CHD1EZB0F104
	A	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	A	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	A	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C484	A	ELECTROLYTIC CAP. 2.2μF/50V M H7	CE1JMAVSL2R2
C485	A	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C486	A	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C487	A	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C488	A	CHIP CERAMIC CAP. F Z 1μF/10V or	CHD1AZB0F105
	A	CHIP CERAMIC CAP. F Z 1μF/10V	CHD1AZ30F105
C489	A	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C491	A	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C492	A	ELECTROLYTIC CAP. 22μF/16V M H7	CE1CMAVSL220

Ref. No.	Mark	Description	Part No.
C493	A	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C494	A	ELECTROLYTIC CAP. 22μF/16V M H7	CE1CMAVSL220
C495	A	CHIP CERAMIC CAP.(MELF) F Z 0.01μF/ 16V or	CZM1CZB0F103
	A	CHIP CERAMIC CAP.(MELF) F Z 0.01μF/ 16V	CZM1CZ30F103
C496	A	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C498	A	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C499	A	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C502		ELECTROLYTIC CAP. 220μF/6.3V M H7	CE0KMAVSL221
C505		ELECTROLYTIC CAP. 22μF/10V M H7	CE1AMAVSL220
C507		ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C508		CHIP CERAMIC CAP. B K 0.022μF/50V or	CHD1JKB0B223
		CHIP CERAMIC CAP. B K 0.022μF/25V or	CHD1EKB0B223
		CHIP CERAMIC CAP.(1608) B K 0.022μF/ 50V or	CHD1JK30B223
		CHIP CERAMIC CAP.(1608) B K 0.022μF/ 25V	CHD1EK30B223
C509		ELECTROLYTIC CAP. 220μF/6.3V M H7	CE0KMAVSL221
C513		CHIP CERAMIC CAP.(MELF) SL D 10pF/ 50V or	CZM1JDBSL100
		CHIP CERAMIC CAP.(MELF) SL D 10pF/ 50V or	CZM1JD3SL100
		CHIP CERAMIC CAP. CH D 10pF/50V or	CHD1JDBCH100
		CHIP CERAMIC CAP. CH D 10pF/50V or	CHD1JD3CH100
		CHIP CERAMIC CAP. CG D 10pF/50V	CHD1JD3CG100
C514		CHIP CERAMIC CAP.(MELF) SL J 22pF/50V or	CZM1JJBSL220
		CHIP CERAMIC CAP.(MELF) SL J 22pF/50V or	CZM1JJ3SL220
		CHIP CERAMIC CAP. CH J 22pF/50V or	CHD1JJBCH220
		CHIP CERAMIC CAP.(1608) CH J 22pF/50V or	CHD1JJ3CH220
		CHIP CERAMIC CAP. CG J 22pF/50V	CHD1JJ3CG220
C515		CHIP CERAMIC CAP.(MELF) SL J 18pF/50V or	CZM1JJBSL180
		CHIP CERAMIC CAP.(MELF) SL J 18pF/50V or	CZM1JJ3SL180
		CHIP CERAMIC CAP. CH J 18pF/50V or	CHD1JJBCH180
		CHIP CERAMIC CAP. CH J 18pF/50V or	CHD1JJ3CH180
		CHIP CERAMIC CAP. CG J 18pF/50V	CHD1JJ3CG180
C521		ELECTROLYTIC CAP. 47μF/25V M H7	CE1EMAVSL470
C522		CHIP CERAMIC CAP. B K 4700pF/50V or	CHD1JKB0B472
		CHIP CERAMIC CAP.(1608) B K 4700pF/ 50V	CHD1JK30B472
C523		CHIP CERAMIC CAP.(MELF) SL J 100pF/ 50V or	CZM1JJBSL101
		CHIP CERAMIC CAP.(MELF) SL J 100pF/ 50V or	CZM1JJ3SL101
		CHIP CERAMIC CAP. CH J 100pF/50V or	CHD1JJBCH101
		CHIP CERAMIC CAP.(1608) CH J 100pF/ 50V or	CHD1JJ3CH101
		CHIP CERAMIC CAP. CG J 100pF/50V	CHD1JJ3CG101
C525		CHIP CERAMIC CAP. B K 4700pF/50V or	CHD1JKB0B472
		CHIP CERAMIC CAP.(1608) B K 4700pF/ 50V	CHD1JK30B472
C527		CHIP CERAMIC CAP. B K 0.047μF/50V or	CHD1JKB0B473
		CHIP CERAMIC CAP. B K 0.047μF/25V or	CHD1EKB0B473
		CHIP CERAMIC CAP.(1608) B K 0.047μF/ 50V or	CHD1JK30B473
		CHIP CERAMIC CAP.(1608) B K 0.047μF/ 25V	CHD1EK30B473
C529		CHIP CERAMIC CAP. B K 0.022μF/50V or	CHD1JKB0B223
		CHIP CERAMIC CAP. B K 0.022μF/25V or	CHD1EKB0B223
		CHIP CERAMIC CAP.(1608) B K 0.022μF/ 50V or	CHD1JK30B223
		CHIP CERAMIC CAP.(1608) B K 0.022μF/ 25V	CHD1EK30B223

Ref. No.	Mark	Description	Part No.
C530		ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMAVSL1R0
C531		ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C532		ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C533		ELECTROLYTIC CAP. 47µF/6.3V M H7	CE0KMAVSL470
C534		CHIP CERAMIC CAP. B K 0.1µF/25V or	CHD1EKB0B104
		CHIP CERAMIC CAP. B K 0.1µF/16V or	CHD1CKB0B104
		CHIP CERAMIC CAP.(1608) B K 0.1µF/25V or	CHD1EK30B104
		CHIP CERAMIC CAP.(1608) B K 0.1µF/16V	CHD1CK30B104
C535		ELECTROLYTIC CAP. 22µF/10V M H7	CE1AMAVSL220
C536		CHIP CERAMIC CAP. B K 1000pF/50V or	CHD1JKB0B102
		CHIP CERAMIC CAP. B K 1000pF/50V	CHD1JK30B102
C537		CHIP CERAMIC CAP. B K 1000pF/50V or	CHD1JKB0B102
		CHIP CERAMIC CAP. B K 1000pF/50V	CHD1JK30B102
C540		CHIP CERAMIC CAP.(MELF) F Z 0.01µF/16V or	CZM1CZB0F103
		CHIP CERAMIC CAP.(MELF) F Z 0.01µF/16V	CZM1CZ30F103
C541		CHIP CERAMIC CAP. F Z 0.1µF/50V or	CHD1JZB0F104
		CHIP CERAMIC CAP. F Z 0.1µF/25V or	CHD1EZB0F104
		CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
		CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
		CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C544		ELECTROLYTIC CAP. 100µF/6.3V H7	CE0KMAVSL101
C550	A	ELECTROLYTIC CAP. 22µF/50V M H7	CE1JMASSL220
C571	A	CHIP CERAMIC CAP. B K 0.1µF/25V or	CHD1EKB0B104
	A	CHIP CERAMIC CAP. B K 0.1µF/16V or	CHD1CKB0B104
	A	CHIP CERAMIC CAP.(1608) B K 0.1µF/25V or	CHD1EK30B104
	A	CHIP CERAMIC CAP.(1608) B K 0.1µF/16V	CHD1CK30B104
C572	A	ELECTROLYTIC CAP. 100µF/6.3V H7	CE0KMAVSL101
C574	A	CHIP CERAMIC CAP. B K 4700pF/50V or	CHD1JKB0B472
	A	CHIP CERAMIC CAP.(1608) B K 4700pF/50V	CHD1JK30B472
C701	A	ELECTROLYTIC CAP. 0.47µF/50V M or	CE1JMASDLR47
	A	ELECTROLYTIC CAP. 0.47µF/50V M	CE1JMASTLR47
C701	B,C,D	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	B,C,D	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C703		ELECTROLYTIC CAP. 100µF/6.3V H7	CE0KMAVSL101
C704		CHIP CERAMIC CAP. F Z 0.1µF/50V or	CHD1JZB0F104
		CHIP CERAMIC CAP. F Z 0.1µF/25V or	CHD1EZB0F104
		CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
		CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
		CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C707	B,C,D	FILM CAP.(P) 0.039µF/50V J or	CMA1JJS00393
	B,C,D	FILM CAP.(P) 0.039µF/50V J	CA1J393MS029
C708		ELECTROLYTIC CAP. 0.22µF/50V M or	CE1JMASDLR22
		ELECTROLYTIC CAP. 0.22µF/50V M	CE1JMASTLR22
C709		ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
		ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C751		CHIP CERAMIC CAP.(MELF) Y K 2200pF/35V or	CZM1GKB0Y222
		CHIP CERAMIC CAP.(MELF) Y K 2200pF/35V	CZM1GK30Y222
C752		CHIP CERAMIC CAP.(MELF) Y K 2200pF/35V or	CZM1GKB0Y222
		CHIP CERAMIC CAP.(MELF) Y K 2200pF/35V	CZM1GK30Y222
C762		ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMAVSL4R7
C766		CHIP CERAMIC CAP.(MELF) F Z 0.01µF/16V or	CZM1CZB0F103

Ref. No.	Mark	Description	Part No.
		CHIP CERAMIC CAP.(MELF) F Z 0.01µF/16V	CZM1CZ30F103
C772		ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMASSL4R7
C773		ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMASSL4R7
C777		ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMAVSL4R7
C780	B,C,D	ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMAVSL4R7
C781	B,C,D	ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMAVSL4R7
C1001⚠		METALLIZED FILM CAP. 0.022µF/275V K or	CT2E223HJE13
⚠		METALLIZED FILM CAP. 0.022µF/275V K or	CT2E223HJE05
⚠		METALLIZED FILM CAP. 0.022µF/250V K or	CT2E223DC011
⚠		METALLIZED FILM CAP. 0.022µF/250V M	CT2E223MS037
C1002		ELECTROLYTIC CAP. 22µF/50V M or	CE1JMASDL220
		ELECTROLYTIC CAP. 22µF/50V M	CE1JMASTL220
C1003		CERAMIC CAP. B K 0.01µF/500V	CCD2JKP0B103
C1004		ELECTROLYTIC CAP. 220µF/200V M	CA2D221S6008
C1005		CERAMIC CAP. B K 120pF/500V	CCD2JKP0B121
C1006⚠		SAFETY CAP. 3300pF/250V or	CCG2EMA0F332
⚠		SAFETY CAP. 3300pF/250V	CCD2EMA0E332
C1007		ELECTROLYTIC CAP. 1000µF/6.3V M or	CE0KMASDL102
		ELECTROLYTIC CAP. 1000µF/6.3V M	CE0KMASTL102
C1008		CERAMIC CAP. B K 120pF/500V	CCD2JKP0B121
C1013		CERAMIC CAP.(AX) X K 3300pF/16V	CCA1CKT0X332
C1014		ELECTROLYTIC CAP. 470µF/6.3V M or	CE0KMASDL471
		ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASTL471
C1015		ELECTROLYTIC CAP. 220µF/6.3V M H7	CE0KMAVSL221
C1018	A	ELECTROLYTIC CAP. 100µF/10V M H7	CE1AMAVSL101
C1023		CERAMIC CAP. B K 470pF/100V or	CCD2AKP0B471
		CERAMIC CAP. B K 470pF/500V	CCD2JKS0B471
C1029		CERAMIC CAP.(AX) X K 5600pF/16V	CCA1CKT0X562
C1021	A	CHIP CERAMIC CAP. B K 0.01µF/50V or	CHD1JKB0B103
	A	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1032		ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C1033		CERAMIC CAP. YV Z 0.022µF/50V	CCD1JZSYV223
C1038		ELECTROLYTIC CAP. 470µF/6.3V M or	CE0KMASDL471
		ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASTL471
C1039		CHIP CERAMIC CAP. F Z 0.1µF/50V or	CHD1JZB0F104
		CHIP CERAMIC CAP. F Z 0.1µF/25V or	CHD1EZB0F104
		CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
		CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
		CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C1040		ELECTROLYTIC CAP. 100µF/6.3V M or	CE0KMASDL101
		ELECTROLYTIC CAP. 100µF/6.3V M	CE0KMASTL101
C1042		ELECTROLYTIC CAP. 470µF/6.3V M or	CE0KMASDL471
		ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASTL471
C1070		CHIP CERAMIC CAP. B K 0.01µF/50V or	CHD1JKB0B103
		CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1201		ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C1202		ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMASSL100
C1205		CHIP CERAMIC CAP. CH J 220pF/50V or	CHD1JJBCH221
		CHIP CERAMIC CAP. CH J 220pF/50V or	CHD1JJ3CH221
		CHIP CERAMIC CAP. CG J 220pF/50V	CHD1JJ3CG221
C1206		CHIP CERAMIC CAP. CH J 220pF/50V or	CHD1JJBCH221
		CHIP CERAMIC CAP. CH J 220pF/50V or	CHD1JJ3CH221
		CHIP CERAMIC CAP. CG J 220pF/50V	CHD1JJ3CG221
C1207		CHIP CERAMIC CAP. CH J 47pF/50V or	CHD1JJBCH470
		CHIP CERAMIC CAP.(1608) CH J 47pF/50V or	CHD1JJ3CH470
		CHIP CERAMIC CAP. CG J 47pF/50V	CHD1JJ3CG470
C1208		CHIP CERAMIC CAP. CH J 47pF/50V or	CHD1JJBCH470

Ref. No.	Mark	Description	Part No.
		CHIP CERAMIC CAP.(1608) CH J 47pF/50V or	CHD1JJ3CH470
		CHIP CERAMIC CAP. CG J 47pF/50V	CHD1JJ3CG470
C1221		ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C1222		ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMASSL100
C1223		CHIP CERAMIC CAP. B K 1000pF/50V or	CHD1JKB0B102
		CHIP CERAMIC CAP. B K 1000pF/50V	CHD1JK30B102
C1224		CHIP CERAMIC CAP. B K 1000pF/50V or	CHD1JKB0B102
		CHIP CERAMIC CAP. B K 1000pF/50V	CHD1JK30B102
C1245		CHIP CERAMIC CAP. F Z 0.1μF/50V or	CHD1JZB0F104
		CHIP CERAMIC CAP. F Z 0.1μF/25V or	CHD1EZB0F104
		CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
		CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
		CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C1246		CHIP CERAMIC CAP. F Z 0.1μF/50V or	CHD1JZB0F104
		CHIP CERAMIC CAP. F Z 0.1μF/25V or	CHD1EZB0F104
		CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
		CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
		CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C1247		ELECTROLYTIC CAP. 470μF/6.3V M or	CE0KMASDL471
		ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASTL471
C1249		ELECTROLYTIC CAP. 47μF/16V M H7	CE1CMAVSL470
C1351		CHIP CERAMIC CAP. B K 0.1μF/25V or	CHD1EKB0B104
		CHIP CERAMIC CAP. B K 0.1μF/16V or	CHD1CKB0B104
		CHIP CERAMIC CAP.(1608) B K 0.1μF/25V or	CHD1EK30B104
		CHIP CERAMIC CAP.(1608) B K 0.1μF/16V	CHD1CK30B104
C1352		ELECTROLYTIC CAP. 47μF/6.3V M H7	CE0KMAVSL470
C1354		CHIP CERAMIC CAP. CH J 100pF/50V or	CHD1JJBCH101
		CHIP CERAMIC CAP.(1608) CH J 100pF/ 50V or	CHD1JJ3CH101
		CHIP CERAMIC CAP. CG J 100pF/50V	CHD1JJ3CG101
C1355		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
C1394		ELECTROLYTIC CAP. 47μF/6.3V M H7	CE0KMASSL470
C1395		ELECTROLYTIC CAP. 470μF/6.3V M or	CE0KMASDL471
		ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASTL471
C1421		CHIP CERAMIC CAP. B K 0.01μF/50V or	CHD1JKB0B103
		CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C1422		CHIP CERAMIC CAP. B K 0.1μF/25V or	CHD1EKB0B104
		CHIP CERAMIC CAP. B K 0.1μF/16V or	CHD1CKB0B104
		CHIP CERAMIC CAP.(1608) B K 0.1μF/25V or	CHD1EK30B104
		CHIP CERAMIC CAP.(1608) B K 0.1μF/16V	CHD1CK30B104
C1441		CHIP CERAMIC CAP. B K 0.33μF/10V or	CHD1AKB0B334
		CHIP CERAMIC CAP.(1608) B K 0.33μF/ 10V	CHD1AK30B334
C1442		ELECTROLYTIC CAP. 470μF/6.3V M or	CE0KMASDL471
		ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASTL471
C1461		ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C1462		ELECTROLYTIC CAP. 470μF/6.3V M or	CE0KMASDL471
		ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASTL471
C1481		ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C1482		ELECTROLYTIC CAP. 470μF/6.3V M or	CE0KMASDL471
		ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASTL471
C1522		ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C1523		CHIP CERAMIC CAP. F Z 0.1μF/50V or	CHD1JZB0F104
		CHIP CERAMIC CAP. F Z 0.1μF/25V or	CHD1EZB0F104
		CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
		CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
C1524		ELECTROLYTIC CAP. 100μF/6.3V H7	CE0KMAVSL101
C1531		CHIP CERAMIC CAP. B K 0.01μF/50V or	CHD1JKB0B103
		CHIP CERAMIC CAP.(1608) B K 0.01μF/ 50V	CHD1JK30B103
C1532		ELECTROLYTIC CAP. 22μF/6.3V M H7	CE0KMAVSL220
C2002		CHIP CERAMIC CAP. B K 1000pF/50V or	CHD1JKB0B102
		CHIP CERAMIC CAP. B K 1000pF/50V	CHD1JK30B102
C2004		ELECTROLYTIC CAP. 100μF/6.3V H7	CE0KMAVSL101
C2012		CHIP CERAMIC CAP. F Z 0.1μF/50V or	CHD1JZB0F104
		CHIP CERAMIC CAP. F Z 0.1μF/25V or	CHD1EZB0F104
		CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
		CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
		CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
		DIODES	
D013		RECTIFIER DIODE BA158 or	NDQZ000BA158
		RECTIFIER DIODE BA158 or	NDWZ000BA158
		RECTIFIER DIODE ERA22-10	QDPZ0ERA2210
D015		SCHOTTKY BARRIER DIODE SB370	NDQZ000SB370
D016		SCHOTTKY BARRIER DIODE SB340 or	NDQZ000SB340
		SCHOTTKY BARRIER DIODE SB340	NDWZ000SB340
D019		PCB JUMPER D0.6-P10.0	JW10.0T
D030		RECTIFIER DIODE BA158 or	NDQZ000BA158
		RECTIFIER DIODE BA158 or	NDWZ000BA158
		RECTIFIER DIODE ERA22-10	QDPZ0ERA2210
D031		ZENER DIODE DZ-18BSBT265 or	NDTB00DZ18BS
		ZENER DIODE MTZJT-7718B	QDTB00MTZJ18
D040		ZENER DIODE DZ-6.8BSBT265 or	NDTB0DZ6R8BS
		ZENER DIODE MTZJT-776.8B	QDTB0MTZJ6R8
D052		ZENER DIODE DZ-10BSBT265 or	NDTB00DZ10BS
		ZENER DIODE MTZJT-7710B	QDTB00MTZJ10
D080		RECTIFIER DIODE 1N4005 or	NDQZ001N4005
		RECTIFIER DIODE 1N4005	NDWZ001N4005
D081		RECTIFIER DIODE 1N4005 or	NDQZ001N4005
		RECTIFIER DIODE 1N4005	NDWZ001N4005
D082		RECTIFIER DIODE 1N4005 or	NDQZ001N4005
		RECTIFIER DIODE 1N4005	NDWZ001N4005
D100		SWITCHING DIODE 1N4148M or	NDTZ01N4148M
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D101		SWITCHING DIODE 1N4148M or	NDTZ01N4148M
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D501		SWITCHING DIODE 1N4148M or	NDTZ01N4148M
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D502	A	SWITCHING DIODE 1N4148M or	NDTZ01N4148M
	A	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D504		ZENER DIODE DZ-18BSBT265 or	NDTB00DZ18BS
		ZENER DIODE MTZJT-7718B	QDTB00MTZJ18
D510	A	SWITCHING DIODE 1N4148M or	NDTZ01N4148M
	A	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D555		LED MIE-534A2 or	NPZZM1E534A2
		LED SIR-563ST3F P or	QPQPS1R563ST
		LED SIR-563ST3F Q	QPQQS1R563ST
D564	B,C,D	LED(RED) 204HD/E	NPQZ00204HDE
D565	B,C,D	LED(RED) 204HD/E	NPQZ00204HDE
D566		LED(GREEN) 204-10GD/S957	NPQZ10GDS957
D567		LED(GREEN) 204-10GD/S957	NPQZ10GDS957
D571		LED(RED) 204HD/E	NPQZ00204HDE
D701		ZENER DIODE DZ-33BSDT265 or	NDTD00DZ33BS

Ref. No.	Mark	Description	Part No.
		ZENER DIODE MTZJT-7733D	QDTD00MTZJ33
D1001		RECTIFIER DIODE 1N4005 or	NDQZ001N4005
		RECTIFIER DIODE 1N4005	NDWZ001N4005
D1002		RECTIFIER DIODE 1N4005 or	NDQZ001N4005
		RECTIFIER DIODE 1N4005	NDWZ001N4005
D1003		RECTIFIER DIODE 1N4005 or	NDQZ001N4005
		RECTIFIER DIODE 1N4005	NDWZ001N4005
D1004		RECTIFIER DIODE 1N4005 or	NDQZ001N4005
		RECTIFIER DIODE 1N4005	NDWZ001N4005
D1007		CARBON RES. 1/4W J 68k Ω	RCX4JATZ0683
D1008		SCHOTTKY BARRIER DIODE SB140 or	NDQZ000SB140
		SCHOTTKY BARRIER DIODE SB140	NDWZ000SB140
D1010		RECTIFIER DIODE BA158 or	NDQZ000BA158
		RECTIFIER DIODE BA158 or	NDWZ000BA158
		RECTIFIER DIODE ERA22-10	QDPZ0ERA2210
D1011		RECTIFIER DIODE BA158 or	NDQZ000BA158
		RECTIFIER DIODE BA158 or	NDWZ000BA158
		RECTIFIER DIODE ERA22-10	QDPZ0ERA2210
D1012		SWITCHING DIODE 1N4148M or	NDTZ01N4148M
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1018		SWITCHING DIODE 1N4148M or	NDTZ01N4148M
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1016	A	RECTIFIER DIODE FR101	NDWZ000FR101
D1017	A	ZENER DIODE DZ-18BSBT265 or	NDTB00DZ18BS
	A	ZENER DIODE MTZJT-7718B	QDTB00MTZJ18
D1020		SCHOTTKY BARRIER DIODE SB140 or	NDQZ000SB140
		SCHOTTKY BARRIER DIODE SB140	NDWZ000SB140
D1022		SWITCHING DIODE 1N4148M or	NDTZ01N4148M
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1024		SWITCHING DIODE 1N4148M or	NDTZ01N4148M
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1025		SWITCHING DIODE 1N4148M or	NDTZ01N4148M
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1031		PCB JUMPER D0.6-P5.0	JW5.0T
D1036		RECTIFIER DIODE 1N4005 or	NDQZ001N4005
		RECTIFIER DIODE 1N4005	NDWZ001N4005
D1037		RECTIFIER DIODE 1N4005 or	NDQZ001N4005
		RECTIFIER DIODE 1N4005	NDWZ001N4005
D1038		RECTIFIER DIODE 1N4005 or	NDQZ001N4005
		RECTIFIER DIODE 1N4005	NDWZ001N4005
D1058		RECTIFIER DIODE 1N4005 or	NDQZ001N4005
		RECTIFIER DIODE 1N4005	NDWZ001N4005
D1301		ZENER DIODE DZ-5.6BSBT265 or	NDTB0DZ5R6BS
		ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D2001	B,C,D	LED(GREEN) 204-10GD/S957	NPQZ10GDS957
D2002	B,C,D	LED(GREEN) 204-10GD/S957	NPQZ10GDS957
		ICS	
IC301		IC:Y/C/A LA71205M-MPB-E	QSZBA0RSY037
IC451	A	IC:HIFI LA72670BM-MPB-E	QSZBA0RSY039
IC501		MICROCONTROLLER 8BIT MN101D08DFT	QSZAA0RMS017
IC571	A	FL DRIVER IC PT6313-S-TP	NSZBA0TG2006
IC751		IC:SWITCH TC4053BF(N) or	QSMBA0STS002
		IC:SWITCH BU4053BCF or	QSMDA0SRM010
		IC:ANALOG MULTIPLEXERS CD4053BCSJX	NSZBA0TF3071
IC1001 ⚠		PHOTOCOUPLER LTV-817B-F or	NPEB0LTV817F
⚠		PHOTOCOUPLER EL817A or	NPEA000EL817
⚠		PHOTOCOUPLER EL817B or	NPEB000EL817
⚠		PHOTOCOUPLER EL817C or	NPEC000EL817
⚠		PHOTOCOUPLER PS2561A-1(Q) or	QPEQPS2561A1
⚠		PHOTOCOUPLER PS2561A-1(W) or	QPEWPS2561A1
⚠		PHOTOCOUPLER LTV-817C-F	NPEC0LTV817F
IC1002		VOLTAGE REGULATOR PQ070XZ5MZP	QSZBA0TSH034
IC1004		VOLTAGE REGULATOR BA3948FP-E2	QSZBA0TRM073
IC1201		IC:OP AMP KIA4558P or	NSZBA0SJY004
		IC:OP AMP NJM4558D	QSZBA0SJR006
IC1402		DRIVER FOR DVD MM1637XVBE	QSZBA0TMM102
		COILS	
L009		CHOKE COIL 47μH-K or	LLBD00PKV007
		CHOKE COIL 47μH-K or	LLBD00PKV005
		CHOKE COIL 47μH-K	LLBD00PKT001
L251		PCB JUMPER D0.6-P5.0	JW5.0T
L303		INDUCTOR(100μH K) LAP02TA101K	LLAXKATTU101
L304		CHOKE COIL 47μH-K or	LLBD00PKV007
		CHOKE COIL 47μH-K or	LLBD00PKV005
		CHOKE COIL 47μH-K	LLBD00PKT001
L421		INDUCTOR 47μH-K-5FT	LLARKBSTU470
L422		PCB JUMPER D0.6-P5.0	JW5.0T
L451	A	PCB JUMPER D0.6-P5.0	JW5.0T
L501		PCB JUMPER D0.6-P5.0	JW5.0T
L502		CHOKE COIL 47μH-K or	LLBD00PKV007
		CHOKE COIL 47μH-K or	LLBD00PKV005
		CHOKE COIL 47μH-K	LLBD00PKT001
L503		INDUCTOR 12μH-K-26T	LLAXKATTU120
L504		PCB JUMPER D0.6-P5.0	JW5.0T
L701		INDUCTOR 4.7μH-K-26T	LLAXKATTU4R7
L771		PCB JUMPER D0.6-P5.0	JW5.0T
L1001 ⚠		LINE FILTER 27MH TLF14CB2730R4 or	LLBG00ZTU034
⚠		LINE FILTER 27MH CSA-LF199A	LLBG00ZSA008
L1004		BEAD CORE B16 RH 3.5X10X1.3	XL03010XM001
L1007		CHOKE COIL 47μH-K or	LLBD00PKV007
		CHOKE COIL 47μH-K or	LLBD00PKV005
		CHOKE COIL 47μH-K	LLBD00PKT001
L1020		CHOKE COIL 47μH-K or	LLBD00PKV007
		CHOKE COIL 47μH-K or	LLBD00PKV005
		CHOKE COIL 47μH-K	LLBD00PKT001
L1350		INDUCTOR(100μH K) LAP02TA101K	LLAXKATTU101
L1351		INDUCTOR(0.47μH K) LAP02TAR47K	LLAXKATTUR47
L1401		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
L1441		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
L1442		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
L1461		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
L1481		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
L1522		INDUCTOR 47μH-K-5FT	LLARKBSTU470
L2001		INDUCTOR(100μH K) LAP02TA101K	LLAXKATTU101
		TRANSISTORS	
Q031		TRANSISTOR KTA1267(Y) or	NQSY0KTA1267
		TRANSISTOR KTA1267(GR) or	NQS10KTA1267
		TRANSISTOR 2SA1175(J) or	QQSJ02SA1175
		TRANSISTOR 2SA1175(H) or	QQSH02SA1175
		TRANSISTOR 2SA1175(F)	QQSF02SA1175
Q052		RES. BUILT-IN TRANSISTOR KRC103M or	NQSZ0KRC103M
		RES. BUILT-IN TRANSISTOR BA1F4M-T	QQSZ00BA1F4M
Q055		TRANSISTOR KTC3198(Y) or	NQSY0KTC3198
		TRANSISTOR KTC3198(GR) or	NQS40KTC3198

Ref. No.	Mark	Description	Part No.
		TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
		TRANSISTOR 2SC536NG-NPA-AT	QQSGC536NNPA
Q056		TRANSISTOR KTC3203(Y) or	NQSY0KTC3203
		TRANSISTOR 2SC2120-Y(TPE2)	QQSY02SC2120
Q057		TRANSISTOR KTC3199(BL) or	NQS50KTC3199
		TRANSISTOR 2SC2785(K) or	QQSK02SC2785
		TRANSISTOR 2SC1815-BL(TPE2)	QQS202SC1815
Q301		TRANSISTOR KTA1266(GR) or	NQS40KTA1266
		TRANSISTOR 2SA1015-GR(TPE2)	QQS102SA1015
Q302		TRANSISTOR KTC3193(Y)	NQSY0KTC3193
Q303		TRANSISTOR KTC3193(Y)	NQSY0KTC3193
Q391		TRANSISTOR KTA1266(GR) or	NQS40KTA1266
		TRANSISTOR 2SA1015-GR(TPE2)	QQS102SA1015
Q421		TRANSISTOR KTA1266(GR) or	NQS40KTA1266
		TRANSISTOR 2SA1015-GR(TPE2)	QQS102SA1015
Q422		TRANSISTOR KTC3203(Y) or	NQSY0KTC3203
		TRANSISTOR 2SC2120-Y(TPE2)	QQSY02SC2120
Q425		RES. BUILT-IN TRANSISTOR KRA103M or	NQSZ0KRA103M
		RES. BUILT-IN TRANSISTOR BN1F4M-T	QQSZ00BN1F4M
Q426		CHIP TRANSISTOR RN1511(TE85R) or	QQ2Z00RN1511
		CHIP TRANSISTOR FMG4A T148	QQ2Z000FMG4A
Q501		TRANSISTOR KTC3199(BL) or	NQS50KTC3199
		TRANSISTOR 2SC2785(K) or	QQSK02SC2785
		TRANSISTOR 2SC1815-BL(TPE2)	QQS202SC1815
Q506		PHOTO TRANSISTOR PT204-6B-12 or	NPWZT2046B12
		PHOTO TRANSISTOR MID-32A22F	NPWZ1D32A22F
Q563	B,C,D	TRANSISTOR KTA1267(Y) or	NQSY0KTA1267
	B,C,D	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	B,C,D	TRANSISTOR 2SA1175(J) or	QQSJ02SA1175
	B,C,D	TRANSISTOR 2SA1175(H) or	QQSH02SA1175
	B,C,D	TRANSISTOR 2SA1175(F)	QQSF02SA1175
Q565	B,C,D	TRANSISTOR KTA1267(Y) or	NQSY0KTA1267
	B,C,D	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	B,C,D	TRANSISTOR 2SA1175(J) or	QQSJ02SA1175
	B,C,D	TRANSISTOR 2SA1175(H) or	QQSH02SA1175
	B,C,D	TRANSISTOR 2SA1175(F)	QQSF02SA1175
Q566		TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
		TRANSISTOR KTC3199(GR) or	NQS10KTC3199
		TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
		TRANSISTOR 2SC2785(H) or	QQSH02SC2785
		TRANSISTOR 2SC2785(F) or	QQSF02SC2785
		TRANSISTOR 2SC1815-Y(TPE2)	QQSY02SC1815
Q567		TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
		TRANSISTOR KTC3199(GR) or	NQS10KTC3199
		TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
		TRANSISTOR 2SC2785(H) or	QQSH02SC2785
		TRANSISTOR 2SC2785(F) or	QQSF02SC2785
		TRANSISTOR 2SC1815-Y(TPE2)	QQSY02SC1815
Q762	B,C,D	TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
	B,C,D	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	B,C,D	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	B,C,D	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	B,C,D	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	B,C,D	TRANSISTOR 2SC1815-Y(TPE2)	QQSY02SC1815
Q763	B,C,D	TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
	B,C,D	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	B,C,D	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	B,C,D	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	B,C,D	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	B,C,D	TRANSISTOR 2SC1815-Y(TPE2)	QQSY02SC1815
Q1001⚠		FET 2SK3543	QFWZ02SK3543

Ref. No.	Mark	Description	Part No.
Q1003		TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q1004		TRANSISTOR KTC3203(Y) or	NQSY0KTC3203
		TRANSISTOR 2SC2120-Y(TPE2)	QQSY02SC2120
Q1005		TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
		TRANSISTOR KTC3199(GR) or	NQS10KTC3199
		TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
		TRANSISTOR 2SC2785(H) or	QQSH02SC2785
		TRANSISTOR 2SC2785(F) or	QQSF02SC2785
		TRANSISTOR 2SC1815-Y(TPE2)	QQSY02SC1815
Q1006		TRANSISTOR KTA1267(Y) or	NQSY0KTA1267
		TRANSISTOR KTA1267(GR) or	NQS10KTA1267
		TRANSISTOR 2SA1175(J) or	QQSJ02SA1175
		TRANSISTOR 2SA1175(H) or	QQSH02SA1175
		TRANSISTOR 2SA1175(F)	QQSF02SA1175
Q1008		TRANSISTOR KTC3199(Y)	NQSY0KTC3199
Q1011		TRANSISTOR KTC3203(Y) or	NQSY0KTC3203
		TRANSISTOR 2SC2120-Y(TPE2)	QQSY02SC2120
Q1201		TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
		TRANSISTOR KTC3199(GR) or	NQS10KTC3199
		TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
		TRANSISTOR 2SC2785(H) or	QQSH02SC2785
		TRANSISTOR 2SC2785(F) or	QQSF02SC2785
		TRANSISTOR 2SC1815-Y(TPE2)	QQSY02SC1815
Q1202		TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
		TRANSISTOR KTC3199(GR) or	NQS10KTC3199
		TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
		TRANSISTOR 2SC2785(H) or	QQSH02SC2785
		TRANSISTOR 2SC2785(F) or	QQSF02SC2785
		TRANSISTOR 2SC1815-Y(TPE2)	QQSY02SC1815
Q1204		TRANSISTOR KTA1266(GR) or	NQS40KTA1266
		TRANSISTOR 2SA1015-GR(TPE2)	QQS102SA1015
Q1351		TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
		TRANSISTOR KTC3199(GR) or	NQS10KTC3199
		TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
		TRANSISTOR 2SC2785(H) or	QQSH02SC2785
		TRANSISTOR 2SC2785(F) or	QQSF02SC2785
		TRANSISTOR 2SC1815-Y(TPE2)	QQSY02SC1815
Q1385		TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
		TRANSISTOR KTC3199(GR) or	NQS10KTC3199
		TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
		TRANSISTOR 2SC2785(H) or	QQSH02SC2785
		TRANSISTOR 2SC2785(F) or	QQSF02SC2785
		TRANSISTOR 2SC1815-Y(TPE2)	QQSY02SC1815
Q2002	B,C,D	TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
	B,C,D	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	B,C,D	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	B,C,D	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	B,C,D	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	B,C,D	TRANSISTOR 2SC1815-Y(TPE2)	QQSY02SC1815
Q2013	B,C,D	TRANSISTOR KTA1267(Y) or	NQSY0KTA1267
	B,C,D	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	B,C,D	TRANSISTOR 2SA1175(J) or	QQSJ02SA1175
	B,C,D	TRANSISTOR 2SA1175(H) or	QQSH02SA1175
	B,C,D	TRANSISTOR 2SA1175(F)	QQSF02SA1175
RESISTORS			
R001⚠		GLASS GLAZE RES. 1/2W J 3.3M Ω or	RXX2JZLZ0335
⚠		CARBON RES. 1/2W J 3.3M Ω	RCX2335DP001
R031		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R032		CHIP RES.(1608) 1/10W J 4.7k Ω or	RRXAJB5Z0472
		CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472

Ref. No.	Mark	Description	Part No.
R034		CHIP RES.(1608) 1/10W F 2.2k Ω or	RRXAFB5H2201
		CHIP RES.(1608) 1/10W F 2.2k Ω or	RRXAFB5Z2201
		CHIP RES.(1608) 1/10W F 2.2k Ω or	RRXAFR5H2201
		CHIP RES.(1608) 1/10W F 2.2k Ω	RRXAFR5Z2201
R037		CARBON RES. 1/4W J 1.8k Ω	RCX4JATZ0182
R039		CHIP RES.(1608) 1/10W F 5.6k Ω or	RRXAFB5H5601
		CHIP RES. 1/10W F 5.6k Ω or	RRXAFB5Z5601
		CHIP RES.(1608) 1/10W F 5.6k Ω or	RRXAFR5H5601
		CHIP RES. 1/10W F 5.6k Ω	RRXAFR5Z5601
R041		CHIP RES.(1608) 1/10W J 68k Ω or	RRXAJB5Z0683
		CHIP RES.(1608) 1/10W J 68k Ω	RRXAJR5Z0683
R042		CHIP RES.(1608) 1/10W J 1.8k Ω or	RRXAJB5Z0182
		CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R043		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R056		CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R057		CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R058		CHIP RES.(1608) 1/10W J 180 Ω or	RRXAJB5Z0181
		CHIP RES.(1608) 1/10W J 180 Ω	RRXAJR5Z0181
R060		CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R061		CARBON RES. 1/6W J 1.2k Ω or	RCX6JATZ0122
		CARBON RES. 1/4W J 1.2k Ω	RCX4JATZ0122
R062		CARBON RES. 1/6W J 5.6k Ω or	RCX6JATZ0562
		CARBON RES. 1/4W J 5.6k Ω	RCX4JATZ0562
R063		PCB JUMPER D0.6-P5.0	JW5.0T
R073		CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R075		CARBON RES. 1/6W J 4.7k Ω or	RCX6JATZ0472
		CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R082		CARBON RES. 1/4W J 1.8k Ω	RCX4JATZ0182
R090		CARBON RES. 1/4W J 270 Ω	RCX4JATZ0271
R091		CARBON RES. 1/4W J 270 Ω	RCX4JATZ0271
R092		CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R093		CARBON RES. 1/4W J 1.8k Ω	RCX4JATZ0182
R094		CARBON RES. 1/4W J 1.8k Ω	RCX4JATZ0182
R095		CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R301		CHIP RES.(1608) 1/10W J 39k Ω or	RRXAJB5Z0393
		CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R302		CHIP RES.(1608) 1/10W J 3.3k Ω or	RRXAJB5Z0332
		CHIP RES.(1608) 1/10W J 3.3k Ω	RRXAJR5Z0332
R304		CHIP RES.(1608) 1/10W J 1.2k Ω or	RRXAJB5Z0122
		CHIP RES.(1608) 1/10W J 1.2k Ω	RRXAJR5Z0122
R306		CHIP RES.(1608) 1/10W J 3.9M Ω or	RRXAJB5Z0395
		CHIP RES.(1608) 1/10W J 3.9M Ω	RRXAJR5Z0395
R307		CHIP RES.(1608) 1/10W J 100k Ω or	RRXAJB5Z0104
		CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R308		CHIP RES.(1608) 1/10W J 82k Ω or	RRXAJB5Z0823
		CHIP RES.(1608) 1/10W J 82k Ω	RRXAJR5Z0823
R309		CHIP RES.(1608) 1/10W J 2.2k Ω or	RRXAJB5Z0222
		CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R310		CHIP RES.(1608) 1/10W J 4.7k Ω or	RRXAJB5Z0472
		CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R311		CHIP RES.(1608) 1/10W J 1.8k Ω or	RRXAJB5Z0182
		CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R312		CHIP RES.(1608) 1/10W J 1.8k Ω or	RRXAJB5Z0182
		CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R313		CHIP RES.(1608) 1/10W J 1.8k Ω or	RRXAJB5Z0182
		CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R314		CHIP RES.(1608) 1/10W J 680k Ω or	RRXAJB5Z0684
		CHIP RES.(1608) 1/10W J 680k Ω	RRXAJR5Z0684
R315		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R316		CHIP RES.(1608) 1/10W J 2.2k Ω or	RRXAJB5Z0222
		CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R317		CHIP RES.(1608) 1/10W J 8.2k Ω or	RRXAJB5Z0822
		CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R318		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R319		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R320		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R321		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R322		CHIP RES.(1608) 1/10W J 18k Ω or	RRXAJB5Z0183
		CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R323		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R324		CHIP RES.(1608) 1/10W J 18k Ω or	RRXAJB5Z0183
		CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R327		CHIP RES. 1/10W F 1.2k Ω or	RRXAFB5H1201
		CHIP RES. 1/10W F 1.2k Ω or	RRXAFB5Z1201
		CHIP RES. 1/10W F 1.2k Ω or	RRXAFR5H1201
		CHIP RES. 1/10W F 1.2k Ω	RRXAFR5Z1201
R391		CARBON RES. 1/4W J 560 Ω	RCX4JATZ0561
R392		CARBON RES. 1/4W J 560 Ω	RCX4JATZ0561
R395		PCB JUMPER D0.6-P5.0	JW5.0T
R397		CHIP RES.(1608) 1/10W J 220 Ω or	RRXAJB5Z0221
		CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R401	A	CHIP RES.(1608) 1/10W J 6.8k Ω or	RRXAJB5Z0682
	A	CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R401	B,C,D	CHIP RES.(1608) 1/10W J 27k Ω or	RRXAJB5Z0273
	B,C,D	CHIP RES.(1608) 1/10W J 27k Ω	RRXAJR5Z0273
R402	A	CHIP RES.(1608) 1/10W J 8.2k Ω or	RRXAJB5Z0822
	A	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R402	B,C,D	CHIP RES.(1608) 1/10W J 4.7k Ω or	RRXAJB5Z0472
	B,C,D	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R403	B,C,D	CHIP RES.(1608) 1/10W J 27k Ω or	RRXAJB5Z0273
	B,C,D	CHIP RES.(1608) 1/10W J 27k Ω	RRXAJR5Z0273
R404	B,C,D	CHIP RES.(1608) 1/10W J 4.7k Ω or	RRXAJB5Z0472
	B,C,D	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R405	B,C,D	CHIP RES.(1608) 1/10W J 27k Ω or	RRXAJB5Z0273
	B,C,D	CHIP RES.(1608) 1/10W J 27k Ω	RRXAJR5Z0273
R406	B,C,D	CHIP RES.(1608) 1/10W J 4.7k Ω or	RRXAJB5Z0472
	B,C,D	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R407	A	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
	A	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R408	A	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
	A	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R409		CHIP RES.(1608) 1/10W J 8.2k Ω or	RRXAJB5Z0822
		CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R410		CHIP RES.(1608) 1/10W J 12k Ω or	RRXAJB5Z0123
		CHIP RES.(1608) 1/10W J 12k Ω	RRXAJR5Z0123
R411		CHIP RES.(1608) 1/10W J 330k Ω or	RRXAJB5Z0334
		CHIP RES.(1608) 1/10W J 330k Ω	RRXAJR5Z0334
R412		CHIP RES.(1608) 1/10W J 150 Ω or	RRXAJB5Z0151
		CHIP RES.(1608) 1/10W J 150 Ω	RRXAJR5Z0151
R413		CHIP RES.(1608) 1/10W J 22k Ω or	RRXAJB5Z0223
		CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R414		CHIP RES.(1608) 1/10W J 910 Ω or	RRXAJB5Z0911
		CHIP RES.(1608) 1/10W J 910 Ω	RRXAJR5Z0911
R415		CHIP RES.(1608) 1/10W J 2.2k Ω or	RRXAJB5Z0222
		CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222

Ref. No.	Mark	Description	Part No.
R416		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R421		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R422		CHIP RES.(1608) 1/10W J 22k Ω or	RRXAJB5Z0223
		CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R424		CARBON RES. 1/6W J 47k Ω or	RCX6JATZ0473
		CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R425		CARBON RES. 1/6W J 100 Ω or	RCX6JATZ0101
		CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R426		CARBON RES. 1/6W J 820 Ω or	RCX6JATZ0821
		CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R451	A	CHIP RES.(1608) 1/10W J 12k Ω or	RRXAJB5Z0123
	A	CHIP RES.(1608) 1/10W J 12k Ω	RRXAJR5Z0123
R452	A	CHIP RES.(1608) 1/10W J 4.7k Ω or	RRXAJB5Z0472
	A	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R453	A	CHIP RES.(1608) 1/10W J 47k Ω or	RRXAJB5Z0473
	A	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R454	A	CHIP RES.(1608) 1/10W J 8.2k Ω or	RRXAJB5Z0822
	A	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R455	A	CHIP RES.(1608) 1/10W J 47k Ω or	RRXAJB5Z0473
	A	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R456	A	CHIP RES.(1608) 1/10W J 8.2k Ω or	RRXAJB5Z0822
	A	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R457	A	CHIP RES.(1608) 1/10W J 470 Ω or	RRXAJB5Z0471
	A	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R458	A	CHIP RES.(1608) 1/10W J 2.7k Ω or	RRXAJB5Z0272
	A	CHIP RES.(1608) 1/10W J 2.7k Ω	RRXAJR5Z0272
R459	A	CHIP RES.(1608) 1/10W J 22k Ω or	RRXAJB5Z0223
	A	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R462	A	CHIP RES.(1608) 1/10W J 4.7k Ω or	RRXAJB5Z0472
	A	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R463	A	CHIP RES.(1608) 1/10W J 47k Ω or	RRXAJB5Z0473
	A	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R464	A	CHIP RES.(1608) 1/10W J 8.2k Ω or	RRXAJB5Z0822
	A	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R465	A	CHIP RES.(1608) 1/10W J 47k Ω or	RRXAJB5Z0473
	A	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R466	A	CHIP RES.(1608) 1/10W J 8.2k Ω or	RRXAJB5Z0822
	A	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R467	A	CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
	A	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R468	A	CHIP RES.(1608) 1/10W J 470 Ω or	RRXAJB5Z0471
	A	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R469	A	CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
	A	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R470	A	CHIP RES.(1608) 1/10W J 470 Ω or	RRXAJB5Z0471
	A	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R470	B,C,D	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
	B,C,D	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R471	A	CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
	A	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R472	A	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
	A	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R484	A	CHIP RES.(1608) 1/10W J 47k Ω or	RRXAJB5Z0473
	A	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R485	A	CHIP RES.(1608) 1/10W J 15k Ω or	RRXAJB5Z0153
	A	CHIP RES.(1608) 1/10W J 15k Ω	RRXAJR5Z0153
R486	A	CHIP RES.(1608) 1/10W J 47k Ω or	RRXAJB5Z0473
	A	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R487	A	CHIP RES.(1608) 1/10W J 15k Ω or	RRXAJB5Z0153

Ref. No.	Mark	Description	Part No.
	A	CHIP RES.(1608) 1/10W J 15k Ω	RRXAJR5Z0153
R502		CHIP RES.(1608) 1/10W J 2.2k Ω or	RRXAJB5Z0222
		CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R503		CHIP RES.(1608) 1/10W J 820 Ω or	RRXAJB5Z0821
		CHIP RES.(1608) 1/10W J 820 Ω	RRXAJR5Z0821
R504		CHIP RES.(1608) 1/10W J 100k Ω or	RRXAJB5Z0104
		CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R506		CHIP RES.(1608) 1/10W J 100k Ω or	RRXAJB5Z0104
		CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R508		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R511		CHIP RES.(1608) 1/10W J 39k Ω or	RRXAJB5Z0393
		CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R517		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R518		CHIP RES.(1608) 1/10W J 220k Ω or	RRXAJB5Z0224
		CHIP RES.(1608) 1/10W J 220k Ω	RRXAJR5Z0224
R521		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R523		CHIP RES.(1608) 1/10W J 2.2k Ω or	RRXAJB5Z0222
		CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R524		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R525		CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R526		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R527		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R528		CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R530		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R531		CARBON RES. 1/6W G 4.7k Ω or	RCX6GATZ0472
		CARBON RES. 1/4W G 4.7k Ω	RCX4GATZ0472
R532		CARBON RES. 1/6W G 1.5k Ω or	RCX6GATZ0152
		CARBON RES. 1/4W G 1.5k Ω	RCX4GATZ0152
R533		CARBON RES. 1/6W G 22k Ω or	RCX6GATZ0223
		CARBON RES. 1/4W G 22k Ω	RCX4GATZ0223
R534		CARBON RES. 1/6W G 470 Ω or	RCX6GATZ0471
		CARBON RES. 1/4W G 470 Ω	RCX4GATZ0471
R535		CARBON RES. 1/6W G 10k Ω or	RCX6GATZ0103
		CARBON RES. 1/4W G 10k Ω	RCX4GATZ0103
R536		CARBON RES. 1/6W G 3.6k Ω or	RCX6GATZ0362
		CARBON RES. 1/4W G 3.6k Ω	RCX4GATZ0362
R537		CHIP RES.(1608) 1/10W J 33k Ω or	RRXAJB5Z0333
		CHIP RES.(1608) 1/10W J 33k Ω	RRXAJR5Z0333
R540		CHIP RES.(1608) 1/10W J 390k Ω or	RRXAJB5Z0394
		CHIP RES.(1608) 1/10W J 390k Ω	RRXAJR5Z0394
R541		CHIP RES.(1608) 1/10W J 390k Ω or	RRXAJB5Z0394
		CHIP RES.(1608) 1/10W J 390k Ω	RRXAJR5Z0394
R542		CARBON RES. 1/4W J 270 Ω	RCX4JATZ0271
R543		CHIP RES.(1608) 1/10W J 4.7k Ω or	RRXAJB5Z0472
		CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R544		CHIP RES.(1608) 1/10W J 18k Ω or	RRXAJB5Z0183
		CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R545		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R546		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R551		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R566	B,C,D	CARBON RES. 1/6W J 220 Ω or	RCX6JATZ0221

Ref. No.	Mark	Description	Part No.
	B,C,D	CARBON RES. 1/4W J 220 Ω	RCX4JATZ0221
R567	B,C,D	CHIP RES.(1608) 1/10W J 3.9k Ω or	RRXAJB5Z0392
	B,C,D	CHIP RES.(1608) 1/10W J 3.9k Ω	RRXAJR5Z0392
R568	B,C,D	CARBON RES. 1/6W J 220 Ω or	RCX6JATZ0221
	B,C,D	CARBON RES. 1/4W J 220 Ω	RCX4JATZ0221
R570	B,C,D	CHIP RES.(1608) 1/10W J 3.9k Ω or	RRXAJB5Z0392
	B,C,D	CHIP RES.(1608) 1/10W J 3.9k Ω	RRXAJR5Z0392
R571	A	CARBON RES. 1/6W J 10 Ω or	RCX6JATZ0100
	A	CARBON RES. 1/4W J 10 Ω	RCX4JATZ0100
R572	A	CHIP RES.(1608) 1/10W J 100k Ω or	RRXAJB5Z0104
	A	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R573		CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R574		CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R575		CHIP RES.(1608) 1/10W J 3.9k Ω or	RRXAJB5Z0392
		CHIP RES.(1608) 1/10W J 3.9k Ω	RRXAJR5Z0392
R576		CHIP RES.(1608) 1/10W J 3.9k Ω or	RRXAJB5Z0392
		CHIP RES.(1608) 1/10W J 3.9k Ω	RRXAJR5Z0392
R580		CARBON RES. 1/6W J 820 Ω or	RCX6JATZ0821
		CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R585		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R586		CHIP RES.(1608) 1/10W J 1.2k Ω or	RRXAJB5Z0122
		CHIP RES.(1608) 1/10W J 1.2k Ω	RRXAJR5Z0122
R587		CHIP RES.(1608) 1/10W J 1.5k Ω or	RRXAJB5Z0152
		CHIP RES.(1608) 1/10W J 1.5k Ω	RRXAJR5Z0152
R588		CHIP RES.(1608) 1/10W J 2.2k Ω or	RRXAJB5Z0222
		CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R590		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R591		CHIP RES.(1608) 1/10W J 1.2k Ω or	RRXAJB5Z0122
		CHIP RES.(1608) 1/10W J 1.2k Ω	RRXAJR5Z0122
R593		CHIP RES.(1608) 1/10W J 1.8k Ω or	RRXAJB5Z0182
		CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R594		CHIP RES.(1608) 1/10W J 1.8k Ω or	RRXAJB5Z0182
		CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R600	A	CHIP RES.(1608) 1/10W J 5.1k Ω or	RRXAJB5Z0512
	A	CHIP RES.(1608) 1/10W J 5.1k Ω	RRXAJR5Z0512
R602	A	CHIP RES.(1608) 1/10W J 5.1k Ω or	RRXAJB5Z0512
	A	CHIP RES.(1608) 1/10W J 5.1k Ω	RRXAJR5Z0512
R603	A	CHIP RES.(1608) 1/10W J 8.2k Ω or	RRXAJB5Z0822
	A	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R605	A	CHIP RES.(1608) 1/10W J 8.2k Ω or	RRXAJB5Z0822
	A	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R606	B,C,D	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R607	B,C,D	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R610		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R612		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R615		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R618		CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R620		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R625	B,C,D	CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
	B,C,D	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R626	A	CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
	A	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R640	A	CHIP RES.(1608) 1/10W J 3.9k Ω or	RRXAJB5Z0392
	A	CHIP RES.(1608) 1/10W J 3.9k Ω	RRXAJR5Z0392
R701		CHIP RES.(1608) 1/10W J 330 Ω or	RRXAJB5Z0331
		CHIP RES.(1608) 1/10W J 330 Ω	RRXAJR5Z0331
R702		CARBON RES. 1/4W J 1.8k Ω	RCX4JATZ0182
R703	B,C,D	CHIP RES.(1608) 1/10W J 47k Ω or	RRXAJB5Z0473
	B,C,D	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R704		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R705		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R751		CHIP RES.(1608) 1/10W J 75 Ω or	RRXAJB5Z0750
		CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R752		CHIP RES.(1608) 1/10W J 75 Ω or	RRXAJB5Z0750
		CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R753		CHIP RES.(1608) 1/10W J 75 Ω or	RRXAJB5Z0750
		CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R756	B,C,D	CHIP RES.(1608) 1/10W J 47k Ω or	RRXAJB5Z0473
	B,C,D	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R757	B,C,D	CHIP RES.(1608) 1/10W J 47k Ω or	RRXAJB5Z0473
	B,C,D	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R770		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R777		CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
R778		CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R782	B,C,D	CHIP RES.(1608) 1/10W J 100k Ω or	RRXAJB5Z0104
	B,C,D	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R783	B,C,D	CHIP RES.(1608) 1/10W J 100k Ω or	RRXAJB5Z0104
	B,C,D	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R784	B,C,D	CHIP RES.(1608) 1/10W J 4.7k Ω or	RRXAJB5Z0472
	B,C,D	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R785	B,C,D	CHIP RES.(1608) 1/10W J 100k Ω or	RRXAJB5Z0104
	B,C,D	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R786	B,C,D	CHIP RES.(1608) 1/10W J 100k Ω or	RRXAJB5Z0104
	B,C,D	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R787	B,C,D	CHIP RES.(1608) 1/10W J 4.7k Ω or	RRXAJB5Z0472
	B,C,D	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R1002	A	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R1004		METAL OXIDE FILM RES. 2W J 82k Ω or	RN02JZLZ0823
		METAL OXIDE FILM RES. 2W J 82k Ω	RN02JZQZ0823
R1005		CARBON RES. 1/4W J 1M Ω	RCX4JATZ0105
R1006		CARBON RES. 1/4W J 1M Ω	RCX4JATZ0105
R1008		CARBON RES. 1/6W G 1k Ω or	RCX6GATZ0102
		CARBON RES. 1/4W G 1k Ω	RCX4GATZ0102
R1010		CARBON RES. 1/6W J 22k Ω or	RCX6JATZ0223
		CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R1011		METAL OXIDE FILM RES. 1W J 0.68 Ω or	RN01R68DP003
		METAL OXIDE FILM RES. 1W J 0.68 Ω or	RN01R68ZU001
		METAL OXIDE FILM RES. 1W J 0.68 Ω	RN01R68KE009
R1013	A	CARBON RES. 1/6W J 820 Ω or	RCX6JATZ0821
	A	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R1025		CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1026		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1029	A	CARBON RES. 1/6W J 150k Ω or	RCX6JATZ0154
	A	CARBON RES. 1/4W J 150k Ω	RCX4JATZ0154
R1029	B,C,D	CARBON RES. 1/6W J 82k Ω or	RCX6JATZ0823
	B,C,D	CARBON RES. 1/4W J 82k Ω	RCX4JATZ0823
R1032		CARBON RES. 1/6W J 3.3k Ω or	RCX6JATZ0332
		CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R1034		CARBON RES. 1/4W J 680k Ω	RCX4JATZ0684
R1035		CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1036		CARBON RES. 1/6W J 100k Ω or	RCX6JATZ0104
		CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104

Ref. No.	Mark	Description	Part No.
R1037		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1038		CARBON RES. 1/6W J 100k Ω or	RCX6JATZ0104
		CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1039		CARBON RES. 1/6W J 470k Ω or	RCX6JATZ0474
		CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R1043		METAL OXIDE FILM RES. 1W J 2.7 Ω or	RN01JZLZ02R7
		METAL OXIDE FILM RES. 1W J 2.7 Ω	RN01JZQZ02R7
R1042	A	CARBON RES. 1/4W J 15 Ω	RCX4JATZ0150
R1044		CHIP RES.(1608) 1/10W J 220k Ω or	RRXAJB5Z0224
		CHIP RES.(1608) 1/10W J 220k Ω	RRXAJR5Z0224
R1059		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1068		CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1076		CHIP RES.(1608) 1/10W J 22k Ω or	RRXAJB5Z0223
		CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R1077		CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1078	A	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R1085		CHIP RES.(1608) 1/10W F 75 Ω or	RRXAFB5H75R0
		CHIP RES.(1608) 1/10W F 75 Ω or	RRXAFB5Z75R0
		CHIP RES.(1608) 1/10W F 75 Ω or	RRXAFR5H75R0
		CHIP RES.(1608) 1/10W F 75 Ω	RRXAFR5Z75R0
R1086		CHIP RES.(1608) 1/10W J 2k Ω or	RRXAJB5Z0202
		CHIP RES.(1608) 1/10W J 2k Ω	RRXAJR5Z0202
R1087		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1090		CHIP RES.(1608) 1/10W J 56k Ω or	RRXAJB5Z0563
		CHIP RES.(1608) 1/10W J 56k Ω	RRXAJR5Z0563
R1091		CHIP RES.(1608) 1/10W J 33k Ω or	RRXAJB5Z0333
		CHIP RES.(1608) 1/10W J 33k Ω	RRXAJR5Z0333
R1092	B,C,D	CARBON RES. 1/4W J 82 Ω	RCX4JATZ0820
R1093	B,C,D	CARBON RES. 1/4W J 82 Ω	RCX4JATZ0820
R1094		CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R1095		CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R1205		CHIP RES.(1608) 1/10W F 20k Ω or	RRXAFB5H2002
		CHIP RES.(1608) 1/10W F 20k Ω or	RRXAFB5Z2002
		CHIP RES.(1608) 1/10W F 20k Ω or	RRXAFR5H2002
		CHIP RES.(1608) 1/10W F 20k Ω	RRXAFR5Z2002
R1206		CHIP RES.(1608) 1/10W F 20k Ω or	RRXAFB5H2002
		CHIP RES.(1608) 1/10W F 20k Ω or	RRXAFB5Z2002
		CHIP RES.(1608) 1/10W F 20k Ω or	RRXAFR5H2002
		CHIP RES.(1608) 1/10W F 20k Ω	RRXAFR5Z2002
R1207		CHIP RES.(1608) 1/10W J 8.2k Ω or	RRXAJB5Z0822
		CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R1208		CHIP RES.(1608) 1/10W J 8.2k Ω or	RRXAJB5Z0822
		CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R1209		CHIP RES.(1608) 1/10W F 30k Ω or	RRXAFB5H3002
		CHIP RES.(1608) 1/10W F 30k Ω or	RRXAFB5Z3002
		CHIP RES.(1608) 1/10W F 30k Ω or	RRXAFR5H3002
		CHIP RES.(1608) 1/10W F 30k Ω	RRXAFR5Z3002
R1210		CHIP RES.(1608) 1/10W F 30k Ω or	RRXAFB5H3002
		CHIP RES.(1608) 1/10W F 30k Ω or	RRXAFB5Z3002
		CHIP RES.(1608) 1/10W F 30k Ω or	RRXAFR5H3002
		CHIP RES.(1608) 1/10W F 30k Ω	RRXAFR5Z3002
R1221		CHIP RES.(1608) 1/10W J 100k Ω or	RRXAJB5Z0104
		CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R1222		CHIP RES.(1608) 1/10W J 100k Ω or	RRXAJB5Z0104
		CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R1223		CHIP RES.(1608) 1/10W J 470 Ω or	RRXAJB5Z0471
		CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R1224		CHIP RES.(1608) 1/10W J 470 Ω or	RRXAJB5Z0471

Ref. No.	Mark	Description	Part No.
		CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R1225		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1226		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1236		CHIP RES.(1608) 1/10W J 2.2k Ω or	RRXAJB5Z0222
		CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1238		CHIP RES.(1608) 1/10W J 2.2k Ω or	RRXAJB5Z0222
		CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1240		CHIP RES.(1608) 1/10W J 100k Ω or	RRXAJB5Z0104
		CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R1245		CARBON RES. 1/6W J 10 Ω or	RCX6JATZ0100
		CARBON RES. 1/4W J 10 Ω	RCX4JATZ0100
R1351		CHIP RES.(1608) 1/10W J 2k Ω or	RRXAJB5Z0202
		CHIP RES.(1608) 1/10W J 2k Ω	RRXAJR5Z0202
R1352		CHIP RES.(1608) 1/10W J 2.2k Ω or	RRXAJB5Z0222
		CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1353		CHIP RES.(1608) 1/10W J 2.2k Ω or	RRXAJB5Z0222
		CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1354		CHIP RES.(1608) 1/10W J 220 Ω or	RRXAJB5Z0221
		CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R1355		CHIP RES.(1608) 1/10W J 75 Ω or	RRXAJB5Z0750
		CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1356		CHIP RES.(1608) 1/10W J 100k Ω or	RRXAJB5Z0104
		CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R1392		CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1396		CHIP RES.(1608) 1/10W J 1k Ω or	RRXAJB5Z0102
		CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1397		CHIP RES.(1608) 1/10W J 100 Ω or	RRXAJB5Z0101
		CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1402		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1421		CHIP RES. 1/10W F 160 Ω or	RRXAFB5H1600
		CHIP RES. 1/10W F 160 Ω or	RRXAFB5Z1600
		CHIP RES. 1/10W F 160 Ω or	RRXAFR5H1600
		CHIP RES. 1/10W F 160 Ω	RRXAFR5Z1600
R1422		CHIP RES.(1608) 1/10W J 75 Ω or	RRXAJB5Z0750
		CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1441		CHIP RES. 1/10W F 160 Ω or	RRXAFB5H1600
		CHIP RES. 1/10W F 160 Ω or	RRXAFB5Z1600
		CHIP RES. 1/10W F 160 Ω or	RRXAFR5H1600
		CHIP RES. 1/10W F 160 Ω	RRXAFR5Z1600
R1442		CHIP RES.(1608) 1/10W J 75 Ω or	RRXAJB5Z0750
		CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1443		CHIP RES.(1608) 1/10W J 75 Ω or	RRXAJB5Z0750
		CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1461		CHIP RES.(1608) 1/10W F 75 Ω or	RRXAFB5H75R0
		CHIP RES.(1608) 1/10W F 75 Ω or	RRXAFB5Z75R0
		CHIP RES.(1608) 1/10W F 75 Ω or	RRXAFR5H75R0
		CHIP RES.(1608) 1/10W F 75 Ω	RRXAFR5Z75R0
R1462		CHIP RES.(1608) 1/10W J 75 Ω or	RRXAJB5Z0750
		CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1481		CHIP RES.(1608) 1/10W F 75 Ω or	RRXAFB5H75R0
		CHIP RES.(1608) 1/10W F 75 Ω or	RRXAFB5Z75R0
		CHIP RES.(1608) 1/10W F 75 Ω or	RRXAFR5H75R0
		CHIP RES.(1608) 1/10W F 75 Ω	RRXAFR5Z75R0
R1482		CHIP RES.(1608) 1/10W J 75 Ω or	RRXAJB5Z0750
		CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1490		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1521	C,D	CHIP RES.(1608) 1/10W J 2.2k Ω or	RRXAJB5Z0222

Ref. No.	Mark	Description	Part No.
	C,D	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R2001		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2002		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2003		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2005		CHIP RES.(1608) 1/10W J 6.8k Ω or	RRXAJB5Z0682
		CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R2006		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2016	A	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R2028		CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
		CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2025	A	PCB JUMPER D0.6-P5.0	JW5.0T
R2031		CHIP RES.(1608) 1/10W J 22k Ω or	RRXAJB5Z0223
		CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R2050	A	CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
	A	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2051	B,C,D	CARBON RES. 1/4W J 3.9k Ω	RCX4JATZ0392
R2052	B,C,D	CARBON RES. 1/4W J 3.9k Ω	RCX4JATZ0392
R2053	B,C,D	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R2054	B,C,D	CARBON RES. 1/4W J 82 Ω	RCX4JATZ0820
R2055	B,C,D	CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
	B,C,D	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2056	B,C,D	CHIP RES.(1608) 1/10W J 10k Ω or	RRXAJB5Z0103
	B,C,D	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2060	A	CHIP RES.(1608) 1/10W J 5.6k Ω or	RRXAJB5Z0562
	A	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R2086		CHIP RES.(1608) 1/10W J 5.6k Ω or	RRXAJB5Z0562
		CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R2081	B,C,D	PCB JUMPER D0.6-P5.0	JW5.0T
		SWITCHES	
SW2002		TACT SWITCH KSM0614B or	SST0101HH013
		TACT SWITCH SKQSAF001A or	SST0101AL041
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW2003		TACT SWITCH KSM0614B or	SST0101HH013
		TACT SWITCH SKQSAF001A or	SST0101AL041
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW2005	B,C,D	TACT SWITCH KSM0614B or	SST0101HH013
	B,C,D	TACT SWITCH SKQSAF001A or	SST0101AL041
	B,C,D	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW2006	B,C,D	TACT SWITCH KSM0614B or	SST0101HH013
	B,C,D	TACT SWITCH SKQSAF001A or	SST0101AL041
	B,C,D	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW501		TACT SWITCH KSM0614B or	SST0101HH013
		TACT SWITCH SKQSAF001A or	SST0101AL041
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW502		TACT SWITCH KSM0614B or	SST0101HH013
		TACT SWITCH SKQSAF001A or	SST0101AL041
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW505		TACT SWITCH KSM0614B or	SST0101HH013
		TACT SWITCH SKQSAF001A or	SST0101AL041
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW508		TACT SWITCH KSM0614B or	SST0101HH013
		TACT SWITCH SKQSAF001A or	SST0101AL041
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW509		TACT SWITCH KSM0614B or	SST0101HH013
		TACT SWITCH SKQSAF001A or	SST0101AL041
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW511		LEAF SWITCH MXS01830MVP0	SSC0101MCE03

Ref. No.	Mark	Description	Part No.
SW512		ROTARY MODE SWITCH SSS-53MD	SSR0106KB003
SW513		TACT SWITCH KSM0614B or	SST0101HH013
		TACT SWITCH SKQSAF001A or	SST0101AL041
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW514		TACT SWITCH KSM0614B or	SST0101HH013
		TACT SWITCH SKQSAF001A or	SST0101AL041
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW515		TACT SWITCH KSM0614B or	SST0101HH013
		TACT SWITCH SKQSAF001A or	SST0101AL041
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW516		TACT SWITCH KSM0614B or	SST0101HH013
		TACT SWITCH SKQSAF001A or	SST0101AL041
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
		MISCELLANEOUS	
2B11		HEAD SHIELD H9600UD	0VM306770
2B15		BUSH, LED(F) H3700UD	0VM409508
2L062		SCREW, B-TIGHT M3X8 BIND HEAD +	GBKB3080
2L082		SCREW, S-TIGHT M3X5 BIND HEAD +	GBKS3050
A4		JACK BOARD(TUNER) H9600UD	0VM306675
A5	A	JACK BOARD(RCA) H9600UD	0VM204468
A5	B	JACK COVER(RCA) H9601UD	0VM204469
A5	C,D	JACK BOARD(RCA) H9610UD	0VM306766
AC1001 ⚠		AC CORD PB8K9F9110A-05A or	WAC0172LW012
⚠		AC CORD PB8B2F9110A-05A or	WAC0172LW013
⚠		AC CORD A0A0280-018 or	WAC0172LTE07
⚠		AC CORD A0A0280-019 or	WAC0172LTE08
⚠		AC CORD ADP201P	WAC0172ADE03
F1001⚠		FUSE SIC 1A 250V U/C T or	PAGG20CW3102
⚠		FUSE 1A/250V	PAGG20CAG102
FH1001		FUSE HOLDER MSF-015 or	XH01Z00LY001
		FUSE HOLDER DFH-001	XH01Z00RP001
FH1002		FUSE HOLDER MSF-015 or	XH01Z00LY001
		FUSE HOLDER DFH-001	XH01Z00RP001
FIP502	A	V.F.D. 7-BT-298N	TVFD150FT012
JC01		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
JK1202		RCA JACK(BLACK) MSP-281V2-B	JXRL010LY062
JK1401		S TYPE JACK MDC-050V-2.4	JXEL040LY001
JK1403		RCA JACK MSP-283V-B-752 NI LF	JXRL040LY099
JK751		RCA JACK MSP-283V-B-324	JXRL040LY006
JK752	A	RCA JACK MSP-293V3-324	JYRL060LY003
JK752	B,C,D	RCA JACK MSP-282V-14	JXRL030LY001
JK753		RCA JACK(YELLOW) MSP-281V4-B	JXRL010LY003
JK754	A	RCA JACK(WHITE) MSP-281V1-B	JXRL010LY005
JK755	A	RCA JACK(RED) MSP-281V3-A	JYRL010LY002
JK755	B,C,D	RCA JACK(WHITE) MSP-281V1-B	JXRL010LY005
JK756		RCA JACK MSP-282V-12 PBSN	JXRL030LY011
RM2001		REMOTE RECEIVER PIC-37042LU or	USESJRSKK033
		REMOTE RECEIVER MIM-93M6DKF	USESJRSUNT01
T001⚠		SWITCHING TRANSFOMER CSA-SW0412A or	LTT00CPSA156
⚠		SWITCHING TRANSFOMER BCK-28-0417	LTT00CPXB009
TP301		PCB JUMPER D0.6-P15.5	JW15.5T
TP302		PCB JUMPER D0.6-P15.0	JW15.0T
TP502		PCB JUMPER D0.6-P5.0	JW5.0T
TP505		PCB JUMPER D0.6-P5.0	JW5.0T
TP506		PCB JUMPER D0.6-P8.0	JW8.0T
TP507		PCB JUMPER D0.6-P7.0	JW7.0T
TP513		PCB JUMPER D0.6-P7.5	JW7.5T
TP751		PCB JUMPER D0.6-P23.5	JW23.5T

Ref. No.	Mark	Description	Part No.
TP753		PCB JUMPER D0.6-P25.5	JW25.5T
TP754		PCB JUMPER D0.6-P22.5	JW22.5T
TU701		TUNER UNIT VH025AFE or	UTUNNTUSP026
		TUNER UNIT TMZH2X022A	UTUNNTUAL039
VR501		CARBON P.O.T. 100k Ω B	VRCB104HH014
W001	A	FFC CABLE, 27P FFC/P1.00/230	WX1H9600-001
W002	B,C,D	FFC CABLE, 26P FFC/P1.00/230	WX1H9600-002
W004	A,B	FFC CABLE, 18P FFC/P1.00/195	WX1H9600-004
W006	C,D	FFC CABLE, 16P FFC/P1.00/195	WX1H9600-006
X301		X'TAL 3.579545MHz(20PPM) or	FXC355LLN003
		X'TAL 3.579545MHz(20PPM) or	FXC355LCHE01
		X'TAL 3.579545MHz(20PPM)	FXC355LDS001
X502		X'TAL 32.768kHz(20PPM) or	FXC323LQUA01
		X'TAL 32.768kHz(20PPM) or	FXC323LCHE01
		X'TAL 32.768kHz(20PPM)	FXC323LDS002

DVD OPEN/CLOSE CBA

Ref. No.	Mark	Description	Part No.
		DVD OPEN/CLOSE CBA (MCV-C) Consists on the following:	---------
		SWITCHES	
SW2001		TACT SWITCH KSM0614B or	SST0101HH013
		TACT SWITCH SKQSAF001A or	SST0101AL041
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
		MISCELLANEOUS	
W011		PARALLEL WIRE, 2P AWG26#2651/P2.0/125	WX1H9600-011

SENSOR CBA

Ref. No.	Mark	Description	Part No.
		SENSOR CBA Consists on the following:	0VSA14947
		TRANSISTORS	
Q503		PHOTO TRANSISTOR PT204-6B-12 or	NPWZT2046B12
		PHOTO TRANSISTOR MID-32A22F	NPWZ1D32A22F
Q504		PHOTO TRANSISTOR PT204-6B-12 or	NPWZT2046B12
		PHOTO TRANSISTOR MID-32A22F	NPWZ1D32A22F